



REPORT
OF
THE GOVERNORS
OF THE
UNIVERSITY OF ALBERTA
1955-56

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To the Lieutenant-Governor in Council

SIR:

On behalf of the Governors of the University of Alberta, and in accordance with Section 28 of an Act respecting the University of Alberta, the undersigned have the honour to submit through the Minister of Education the Report of the University of Alberta, setting forth the revenue and expenditure for the year ending March 31, 1956, and investments as they stood at the end of the fiscal year.

Appended to this report is the report of the President of the University, in which the academic work of the University for the year July 1, 1955 to June 30, 1956, is dealt with in detail.

C. M. MACLEOD, Chairman
A. STEWART, President

November 30, 1956

Financial Statements

UNIVERSITY OF ALBERTA BALANCE SHEET AS AT MARCH 31, 1956

STATEMENT A

ASSETS

Building and equipment in service:			
Land, buildings and plant	\$	13,135,759.43	
Furnishings and equipment		2,750,099.53	
			\$ 15,885,858.96
Loan receivable:			
Students' Union re Students' Union building, see contra			278,213.41
Investments:			
Provincial direct and guaranteed debentures at book value (market value \$202,500.00)			197,910.00
Current:			
Cash on hand and in bank	\$	44,594.18	
Accounts receivable:			
Sundry debtors	\$	116,595.30	
Less: Allowance for doubtful accounts		2,500.00	
	\$	114,095.30	
Government of the Province of Alberta re construction of buildings		315,298.04	
			429,393.34
Accrued interest		4,604.16	
Merchandise held for resale		109,783.87	
			588,375.55
Prepaid expenses:			
Supplies on hand	\$	83,450.94	
Unexpired insurance		33,938.52	
Legal retainer fee		375.00	
Unemployment insurance stamps		315.24	
			118,079.70
Other assets:			
Livestock inventory	\$	24,751.00	
Deposit, Workmen's Compensation Board		8,564.00	
			33,315.00
Trust:			
Investments, book value:			
Government of Canada bonds, direct and guaranteed	\$	1,347,800.00	
Provincial debentures, direct and guaranteed		750,500.00	
Corporation debentures		2,800.00	
Corporation shares		23,076.93	
	\$	2,124,176.93	
Cash on hand and in bank		161,124.05	
Loans receivable		76,023.40	
Real estate, shares and sundry, nominal value		8.00	
Due from general account		115,742.89	
			2,477,075.27
			<u>\$ 19,578,827.89</u>

LIABILITIES

Capital and surplus:			
Capital provided by the Government of the Province of Alberta	\$	13,459,153.10	
Capital surplus		2,506,754.86	
			\$ 15,965,907.96
Loan payable:			
Government of the Province of Alberta re Students' Union building, see contra			278,213.41
Agreement for purchase of leasehold			6,302.55
Current:			
Bank and treasury branch overdrafts	\$	59,466.23	
Accounts payable		190,629.40	
Due to trust account		115,742.89	
			365,838.52
Deferred income:			
Fees	\$	8,165.40	
Other		488.95	
			8,654.35
Reserves:			
Federal aid funds unexpended	\$	230,640.14	
University Athletic Board fees unexpended		26,274.33	
Land exchange		25,079.35	
Library fees unexpended		24,213.46	
Workmen's Compensation Board		10,507.68	
Rink repairs		1,148.16	
Provincial Laboratory of Public Health, operating		67,887.87	
Operating, general		91,084.84	
			476,835.83
Trust:			
General endowment:			
Rockefeller Foundation	\$	500,000.00	
Scholarships:			
Escheated estates	\$	602,825.46	
General		408,219.98	
			1,011,045.44
Research		364,706.55	
Students' grants and loans		106,319.59	
General educational purposes		98,292.82	
Pensions		56,926.02	
Sundry:			
Administered by the University	\$	106,269.73	
Held on behalf of others		233,515.12	
			339,784.85
			2,477,075.27
			\$ 19,578,827.89
			=====

Edmonton, Alberta, July 5, 1956

I have audited the books and records of the University of Alberta for the year ended March 31, 1956.

Operating Results

Operations for the year under review resulted in a deficit of \$32,498.45. Details of operations are shown in Statement B.

The deficit for the year has been charged to operating reserve. Transactions within the reserve are set forth in Statement C.

Maintenance and upkeep of buildings used by the Faculty of Education in Edmonton and the branch of the University in Calgary have been provided by the Province direct.

Financial Position

Buildings, plant, furnishings and equipment are stated on the Balance Sheet at original cost. No provision has been made for depreciation, but an independent appraisal, completed during the year ended March 31, 1950, indicates that values have been maintained through repairs and renewals, which have been financed from revenue and reserve accounts.

Investments, general and trust, were verified by actual examination, and agreed with the records of the University.

Inventories of merchandise for resale and supplies on hand are certified as to quantities and prices by officials of the University.

Capital and capital transactions during the year are summarized hereunder:

Capital provided by the Government of the Province of Alberta:

Balance as at April 1, 1955\$ 12,961,182.03

Add:

Advances during the year:

Greenhouse and headhouse 180,925.31

North laboratory 78,521.04

Power plant building 45,895.38

Engineering building 23,886.63

Improvements, buildings and grounds 24,484.83

Equipment 144,257.88

\$ 13,459,153.10

Capital surplus:

Balance as at April 1, 1955\$ 2,506,233.24

Add:

Acquired from trusts and donated funds:

Equipment 8,012.16

Library 690.00

Income contributions:

Buildings 1,604.64

Library 37,178.84

\$ 2,553,718.88

Deduct:

Demolitions and disposals 46,964.02

2,506,754.86

\$ 15,965,907.96

=====

Subject to the foregoing remarks, I certify that, in my opinion, the attached Balance sheet is properly drawn up so as to show the true financial position of the University of Alberta as at March 31, 1956, according to information and explanations given to me and as shown by the books of the University, and the accompanying Statement of Revenue and Expenditure correctly sets for the results of operations for the year ended at that date.

C. K. HUCKVALE, F.C.A.,

Provincial Auditor.

UNIVERSITY OF ALBERTA
STATEMENT OF REVENUE AND EXPENDITURE
FOR THE YEAR ENDED MARCH 31, 1956

REVENUE

Grants:

Province of Alberta:

General \$ 1,860,000.00
Debt charges, see contra 368,780.79

\$ 2,228,780.79

Government of Canada:

Federal aid 525,804.50

\$ 2,754,585.29

Fees:

Tuition \$ 833,526.31
Examination and special, net 9,517.16

843,043.47

Interest on Rockefeller foundation endowment \$ 15,000.00

Deduct: Transferred to medical research trust 5,000.00

10,000.00

Library fees, see contra 36,986.01

University Athletic Board fees, see contra 18,415.74

Operating departments net revenue as per Schedule No. 2 65,516.38

\$ 3,728,528.89

EXPENDITURE

Instructional salaries and direct expenses, net, as per

Schedule No. 1 \$ 2,392,657.43

Maintenance of buildings 438,315.77

Debt charges, see contra 368,780.79

Library:

Salaries and expenses, Edmonton \$ 129,682.56

Salaries and expenses, Calgary 9,728.87

Provision for library accessions, see contra 36,968.01

176,379.44

Administrative salaries and expenses, general 146,347.03

Maintenance of grounds 49,729.00

Other expenses:

Student advisory services \$ 21,737.19

Provision for University Athletic Board expenses, see
contra 18,415.74

Calendars, scientific and other publications 12,606.86

Provost's office 10,779.55

Alumni office 8,705.32

Greenhouse salaries and expenses, general 7,704.01

Pension arrears 5,940.24

Travelling expenses, instructional staff 5,366.46

Exchange 310.76

First year committee 249.96

91,816.09

Public service departments, net expenditure, as per

Schedule No. 3 97,001.79

\$ 3,761,027.34

Deficit for the year ended March 31, 1956, charged to
operating reserve

\$ 32,498.45

UNIVERSITY OF ALBERTA

STATEMENT OF OPERATING RESERVE

FOR THE YEAR ENDED MARCH 31, 1956

Balance as at April 1, 1955	\$ 131,130.88
Add:	
Adjustment in respect of previous year	291.44
	<hr/>
	\$ 131,422.32
Deduct:	
Deficit for the year ended March 31, 1956	32,498.45
	<hr/>
	\$ 98,923.87
Deduct:	
Transfer to Provincial Laboratory of Public Health operating reserve:	
Excess of revenue over expenditure	7,839.03
	<hr/>
Balance as at March 31, 1956	\$ 91,084.84
	<hr/> <hr/>

*To the Governors of the
University of Alberta*

GENTLEMEN:

I have the honour to submit the following report on the work of the University of Alberta for the year ending June 30, 1956.

A. STEWART,
President

President's Report to Convocation

October 29, 1955

In my reports at the Fall Convocations in 1953 and 1954 I was able to refer to the official opening of the Engineering Building and the Agriculture Building. Considerable progress has been made on the new greenhouses, which are now partly occupied, and this substantial addition to the facilities of the Plant Science and Botany Departments will be completed before the end of this year. Some delay has been experienced in completing plans for the Administration Building, but the architects are still hopeful that the added space provided by this building may be available in 1956. The Research Council of Alberta, which has occupied cramped quarters in several University buildings, will soon move into their new building on 87th Avenue. We are pleased that the Council has been afforded these new facilities, and feel sure that their move to the south of the Campus will not affect the close cooperation, which has existed in the past, between the Council and the University.

Further added space for the purpose of the University will be required as student numbers continue to grow. Total registrations in the regular session (day-time) have now reached 4,387, an increase of 270 over 1954-55. In addition to these, there are more than 300 registered in Evening Division courses for credit in Edmonton, Calgary, Lethbridge, Medicine Hat, Red Deer and Vegreville. The increase in the past five years has been approximately 1,000. Further, and more rapid, increases are inevitable. I should like to refer particularly to the gratifying increase in the number of students taking courses in the Faculty of Arts and Science, and the Schools of Commerce and Nursing, at the Calgary Branch. This group has practically doubled, from 45 in 1954-55 to 89 this year.

With increasing numbers, the University has been adding to its permanent staff. It is especially interesting to observe the varied backgrounds of the younger men who are coming to the University at this time. They are drawn from other countries, and from many parts of Canada; and have been prepared for their academic duties in many different Universities. This variety is an indispensable quality of a University, enriching the experience of those who attend it.

Similar benefits flow from attendance at the University of students who come here from other parts. The number of overseas students attending the University of Alberta is not large; although there has been a noticeable increase this year. On the Edmonton Campus are almost one hundred students who were born outside Canada and have received much of their education abroad. Over thirty countries are represented in this manner. Most of these persons will remain in Canada, to make their own contribution to our way of life. A considerable number, however, will return to their own countries — where presumably they will occupy posts of some influence and responsibility — having acquired a deeper understanding of Canadian life and character. In this latter group are persons from Great Britain, the United States, Nigeria, the British West Indies, Germany, Syria, Norway, Hong Kong, India, Formosa,

Malaya, Pakistan, Lebanon and Switzerland. No one can doubt the educational value, to Alberta students, of living with young people representing such widely differing cultures, but sharing with them the common aspirations of youth.

At this Convocation we remind ourselves of the history of our Province, and honour those who helped to create it — the priests, the teachers, and the workers on the land. We are privileged to live in a society, colorful, zestful, dynamic. These qualities we owe to the amazing variety of our physical environment, to the diversity of origins and attitudes of our people, and to our heritage of institutions furthering freedom of thought, interchange of ideas, and movement of people. We remember with gratitude those who have created here the kind of society in which a University can flourish, and, if it is true to its purpose, can make its finest contribution.

President's Address to Convocation

May 17, 1956

The University Act requires that, annually, a report from the Board of Governors be presented to the Legislature. In addition to the financial statement and detailed statistics on registrations, the Governors' Report includes a record of the activities of the Departments, Schools and Faculties. The President's Report to Convocation, which, from the nature of this occasion, will be brief, is included in this document.

The report which I am about to make should cover all those aspects of the work of the University which are common to its parts or which bridge the Faculties. Within the organization of the University, unity — and uniformity where necessary — is preserved by General Faculty Council, the Deans' Council, the Senate, and the Board of Governors; and by the work of a very considerable number of standing and *ad hoc* committees which report to these bodies either directly or through the President.

At this time the most pressing problem confronting this University, and all universities in Canada, is that of devising ways and means, consistent with the needs of the community and the functions of the University, to meet the increase in students which is already upon us, and which will accelerate in the years immediately ahead.

Preliminary enquiry into the problem of numbers was undertaken by an *ad hoc* Committee on Affiliations. The Committee prepared estimates of future enrolments based on the numbers in attendance in the schools. Its most significant contribution lay in those recommendations which pointed to a policy of gradual decentralization of University facilities. The principle of decentralization was subsequently approved by the Senate and Board of Governors.

It cannot be the policy of the University to relieve pressures by restriction of admissions. It can be said unequivocally that the University is not satisfied with the present bases of selection of students. Too many students who are admitted find it impossible, under conscientious direction from their instructors, to meet reasonable requirements for promotion. This problem is under con-

tinuing study within the University and by the Joint Committee to Coordinate University and High School Curricula. A considerable amount of research must be done if more effective methods of selection are to be devised.

A report has now been received from the Senate Committee on Financial Assistance to students. We do not know how many competent students fail to reach University; but the number is probably large. Although the cost of University education is not the only factor, it must be important in many cases. A number of Canadian universities have found it necessary to raise fees this year; and in 1956-57, fees at the University of Alberta will be increased, on the average, about five percent. This increase can easily be borne by many families. However, unless financial capacity is to be a major determinant of admission to University, more funds must be available to meet the needs of particular students among the increasing numbers coming forward.

On the request of the Government of the Province that the University submit a long range plan of building requirements, the Space Survey Committee was reconvened and has been giving its best thought to this aspect of the problem. Provision has been made to commence construction of the Administration Building and the Biological Science Wing this year; and the proposed construction of a wing to the Provincial Laboratory of Public Health will bring some further relief from the immediate pressures on space in Edmonton.

In the meantime negotiations are proceeding with the City of Calgary for the leasing and ultimate transfer, of land to the University for expanding facilities there. We hope these negotiations will be completed within a few days. The Space Survey Committee will recommend the construction of buildings in Calgary as these will be required to meet the over-all expansion of numbers.

Within the general policy of decentralization at the junior level, the University is interested in the proposal for a Community College at Lethbridge. The proposal is under consideration by the Department of Education. The University is involved to the extent that the College would offer instruction in courses for University credit.

The problem confronting the University is the same problem which the schools have had to meet. School boards have had to construct new buildings. This has presented difficulties; but the shortage of qualified teachers has been even more perplexing. The University experience will be the same. The members proceeding through the graduate schools reflect the low birth rate of the 1930's, and are depleted by the expanding demands of industry. The search of the universities for additional staff will not add to the number of qualified persons; and no significant increase in the supply can be expected for several years. The competitive situation is apparent to the Board of Governors through the increased number of resignations and the obvious difficulty of filling many vacancies.

The problem of staff is, and will remain most acute in the scientific and technological fields. This brings us back, in a long run attack on the problem, to consideration of the qualifications for admission to the universities. Much is being heard today about technological education in the U.S.S.R. We cannot and should not attempt merely to duplicate what is being done there. However, we must be conscious of our own needs. If, in North America, we are

to meet the rapidly expanding requirements for scientists and technicians, our educational systems must give more, rather than less, emphasis to mathematics and the basic sciences, and must seek to stimulate the interests of young people in these disciplines.

I must refer to one other Committee. Classes opened at the University of Alberta, in temporary facilities, in 1908. The staff included five very remarkable people. The first of these to be appointed—Dr. W. H. Alexander—has survived the years; and Dr. McEachran is with us to-day. The record is one of continuing expansion of staff and facilities, and of widening service to the people of the Province. We will celebrate our fiftieth anniversary in 1958. The Jubilee Committee is already busy on plans to mark the occasion. We solicit the interest of all Alumni and of the citizens of the Province in this event.

Each year we lose through the normal process of retirement some members of the staff with long service to the University. This year we acknowledge our debt to Miss Mabel Patrick, Dr. William Rowan, and Professor L. H. Nichols. Miss Patrick joined the staff in September, 1918, Her colleagues at that time included only two who are still with us—Dr. R. Sandin and Dr. A. J. Cook. Dr. Rowan was appointed in 1920 and Professor Nichols in 1922. In administration, in research, and in teaching they have left their imprints on the record of this University, and on the lives of very many students.

Appended are tabular data concerning academic staff numbers; academic staff appointments and promotions; leave of absence; retirements, resignations; gifts; new scholarships, prizes and medals; staff publications, student registration; and reports of administrative officers.

Table I—Academic Staff Numbers

Administrative Officers

President	1
Assistant to the President	1
Deans of Faculties	8
Directors of Schools	6
Director of the Calgary Branch	1
Assistant Director of the Calgary Branch	1
Director of the Summer Session	1
Provost	1
Assistant Provost, Calgary Branch	1
Director of Student Advisory Services	1
Dean of Women	1
Librarian	1
Superintendent of the University Hospital	1
Registrar	1
Associate Registrar	1
Assistant to the Registrar	1
Alumni Secretary	1
Bursar	1
Accountant	1
Assistant Accountant	1
Purchasing Agent	1
Wardens of Residence Halls	3

Full-Time Teaching Staff

Professors	62	
Associate Professors	99	
Assistant Profesors	60	
Lecturers	21	
Instructors	1	
	<hr/>	243

On leave of absence:

Professors	2
Associate Professors	5
Assistant Professors	4
Lecturers	nil

Part-Time Teaching Staff

Professors	8	
Associate Professors	8	
Clinical Professors	1	
Assistant Professors	8	
Associate Clinical Professors	2	
Assistant Clinical Professors	15	
Lecturers	60	
Instructors	85	
Demonstrators in the Faculty of Education	185	
Demonstrators and Student Assistants	150	
	<hr/>	532

Department of Extension

Director	1	
Assistant Professors	2	
Agricultural Secretary	1	
Supervisor of Visual Instruction	1	
Librarian	1	
	<hr/>	6

Library

Librarian	1	
Assistant Librarian		
Assistants	17	
	<hr/>	18

Industrial Laboratories

Director and Provincial Analyst	1	
Assistant	1	
	<hr/>	2

Provincial Laboratory of Public Health

Provincial Bacteriologist and Director, Edmonton	1	
Director, Calgary	1	
Provincial Pathologist	1	
Assistants	3	
	<hr/>	6

Other Staff

Dietitians	3	
Radio Secretary	1	
	<hr/>	4

Total	847
Less duplicates	35
<i>Total Academic Staff</i>	812

Table II—Academic Staff Appointments and Promotions

Faculty of Agriculture

- James Alexander Robertson, B.S.A., M.Sc., Assistant Professor of Soil Science.
- Ambrose Zitnak, M.Sc., Ph.D., Chief Analyst in Soil and Feed Testing Laboratory.
- William George Corns, M.Sc., Ph.D., from Associate Professor to Professor of Crop Ecology.
- Charles Fred Bentley, M.Sc., Ph.D., from Associate Professor to Professor of Soil Science.
- Saul Zalik, B.S.A., M.Sc., Ph.D., from Assistant to Associate Professor of Plant Physiology and Biochemistry.

Faculty of Arts and Science

- Avadh Behari Bhatia, M.Sc., D.Phil., Ph.D., Assistant Professor in Physics.
- Vernon Berger Haarstad, B.Sc., Sessional Instructor in Chemistry.
- James Francis Hanlan, B.Sc., Sessional Instructor in Chemistry.
- John Winstanley Bilsland, M.A., Lecturer in English.
- Maurice Rabotin, Licence ès Lettres, Exchange Fellow in French.
- James Rudsdale Pounder, M.A., Assistant Professor of Mathematics.
- Albert Harold Lightstone, B.Sc., M.A., Lecturer in Mathematics.
- W. E. Grasham, B.Sc., M.A., Sessional Instructor in Political Science.
- Maurice John Boote, B.A., Assistant Professor of Economics.
- George Ferno MacDowell, B.A., A.M., Assistant Professor of Economics.
- Gordon Bruce Peacock, B.Ed., M.A., Assistant Professor of Drama.
- Joan C. Laird, Sessional Instructor in English.
- Donald MacKenzie Schurman, M.A., Assistant Professor of History.
- Irwin Guttman, B.Sc., M.A., Ph.D., Associate Professor.
- Arthur John Bates Hough, L.Th., B.A., M.A., Assistant Professor of Psychology.
- Frank F. Bueckert, B.Ed., A.M., Lecturer in Drama.
- Alison Genevieve White, Ed.B., M.A., Ph.D., Assistant Professor of English.
- Arleigh Howard Laycock B.A. M.A., Lecturer in Geography.
- Percival Sydney Warren, B.A., A.R.C.S., Ph.D., F.R.S.C., Special Lecturer in Geology.
- Edward Norman Yates, A.O.C.A., Lecturer in Art.
- Heinz Helfenstein, M.Sc., Ph.D., from Lecturer to Assistant Professor of Mathematics.
- Richard Stephen Eaton, Mus.B., from Associate Professor to Professor of Music.
- Max Wyman, B.Sc., Ph.D., F.R.C.S., from Associate Professor to Professor of Mathematics.
- Grant Robert Davy, B.A., M.A., from Assistant to Associate Professor of Political Science.
- Avadh Behari Bhatia, from Assistant to Associate Professor of Physics.

Reginald Charles Jacka, B.Sc., M.S., from Assistant to Associate Professor of Mathematics.

George Samuel, M.A., from Assistant to Associate Professor of French.

George Klaus Horton, B.Sc., A.R.C.S., M.Sc., Ph.D., from Assistant to Associate Professor of Mathematics.

Charles Herald Moore, B.A., Docteur de l'Université de Paris, from Lecturer to Assistant Professor of French.

John Derrick Godfrey, B.Sc., M.S., from Lecturer to Assistant Professor of Geology.

Lawrence Clinton Walker, B.A., M.S., Ph.D., from Lecturer to Assistant Professor of Social Psychology.

School of Commerce

Ben Aksel Lindberg, B.M.E., M.E., Professor of Business Administration and Director of School of Commerce.

William Blain, B.Com., Lecturer in Business Administration.

Faculty of Dentistry

R. C. Sills, D.D.S., Sessional Instructor in Prosthetic Dentistry.

Faculty of Education

Walter Worth, B.Ed., M.Ed., Assistant Professor.

Ethel King, B.Ed., M.Ed., Lecturer, Calgary.

Doris Baker, B.A., B.Ed., M.Ed., Lecturer.

Russell Stewart MacArthur, B.Ed., M.Ed., Ph.D., Associate Professor.

Sidney Axel Lindstedt, B.Sc., Associate Professor, Calgary.

Leola Ford, B.A., M.S., Ph.D., Lecturer, Calgary.

Herbert Edgar Smith, B.A., M.A., M.Ed., Ph.D., Special Lecturer in Education.

Herbert Thomas Coutts, B.A., M.A., Ph.D., Dean, Faculty of Education.

Harold Stewart Baker, B.A., M.A., Ph.D., L.A.B., from Associate Professor to Professor of Education and Head of the Division of Secondary Education.

Harry Theodore Sparby, M.A. from Associate Professor to Professor of Education.

Theophilus George Finn, B.A., A.M., Ed.D., from Associate Professor to Professor.

Joseph Gowanloch Woodsworth, B.A., B.Ed., Ed.D., from Assistant to Associate Professor of Education (Calgary Branch).

Robert Johnston Craig Harper, M.A., M.A., from lecturer to Assistant Professor in Education.

Faculty of Engineering

James Gordon Parr, B.Sc., Ph.D., Associate Professor of Metallurgy.

William Edward Curtis, Sessional Lecturer in Civil Engineering.

Brian Patrick Shields, Sessional Lecturer in Civil Engineering.

Allan W. Peterson, Sessional Lecturer in Civil Engineering.

Robert Arthur Ritter, B.E., M.Sc., Assistant Professor of Chemical Engineering.

James Stewart Kennedy, B.Sc., M.Sc., Assistant Professor of Applied Mechanics.

D. A. Currie, Special Lecturer in Mining Engineering.

P. H. Hwang, Sessional Instructor in Chemical Engineering.
 J. Slupsky, Sessional Instructor in Chemical Engineering.
 Kenneth George Clarke, B.Sc., Assistant Professor in Electrical Engineering.
 James Baird Haddow, B.Sc., Assistant Professor in Mechanical Engineering.
 H. W. Habgood, M.Sc., Ph.D., Special Lecturer in Chemical Engineering.
 Gerald Wesley Sadler, B.Sc., M.Sc., to Superintendent of Buildings and
 Associate Professor of Mechanical Engineering.
 Leonard Eustace Gads, B.Sc., from Associate Professor to Professor of Civil
 Engineering.
 Patrick Bouthillier, B.Sc., S.M., from Assistant to Associate Professor of
 Civil Engineering.
 Jacobus Petrus Verschuren, C.E., from Lecturer to Assistant Professor of
 Civil Engineering.

Extension

Mary Isobel Dodds, B.Com., M.S., Acting Extension Librarian.

School of Household Economics

Joyce Lister, B.Sc., Assistant Dietitian, University Residences.
 Florence Wilson, Sessional Lecturer in Foods and Nutrition.
 Baunita Young, B.Sc., from Assistant Dietitian to Dietitian, University Resi-
 dences.

Faculty of Law

Douglas Sherbaniuk, B.A., LL.B., Assistant Professor of Law.
 Angus Gordon MacDonald, B.A., LL.B., Sessional Instructor in Law.
 Lennox Allister MacLean, B.A., LL.B., Sessional Instructor in Law.
 Ammon Olsen Ackroyd, B.Ed., Sr. Dip., LL.B., Sessional Instructor in Law.
 John Douglas Park, B.A., LL.B., Sessional Instructor in Law.
 Harris Gillespie Field, B.A., LL.B., Sessional Instructor in Law.

Library

Leona Thomson, B.A., B.L.S., Library Assistant.
 Louise Range, B.A., B.L.S., Library Assistant.
 Norma Elizabeth Freifield, B.A., B.L.S. from Librarian Grade II to Grade III.
 Lilian Emily Mary Leversedge, B.A., B.L.S., from Librarian Grade II to
 Grade III.
 Denys Noden, M.A., B.L.S., from Librarian Grade I to Grade II.
 Yvonne Fenton, B.A., A.L.A., from Librarian Grade I to Grade II.
 Lois Jacqueline Carrier, B.A., B.L.S., from Librarian Grade I to Grade II.

Faculty of Medicine

James William Pearce, M.D., C.M., D.Phil., Professor of Physiology.
 Joan Daphne Witney, B.Sc., M.D., C.M., Sessional Instructor in Paediatrics.
 Alexander Hercules Christensen, B.Sc., M.D., Instructor in Pathology.
 Mary Adan Morrison, M.S.W., Sessional Instructor in Psychiatry.
 John Carter Callaghan, M.D., B.Sc., (Med.) Teaching Fellow in Surgery.
 Robert James Johnston, B.Sc., M.D., F.R.C.S.(C), Instructor in Clinical
 Surgery.
 Ludwik Sherman, M.B., Sessional Instructor in Clinical Medicine.
 Tatsuso Yamamoto, M.Sc., Instructor in Bacteriology.
 Sheila Alice Berry, B.Sc., Instructor in Bacteriology.
 Glenn Marvin Martin, M.D., C.M., Sessional Instructor in Biochemistry.

Lawrence B. Smillie, B.A., M.A., Assistant Professor of Biochemistry.
 William T. Boyar, M.D., Sessional Instructor in Surgery.
 Raymond W. Duncan, M.D., Sessional Instructor in Surgery.
 Louis G. Ayotte, M.D., Sessional Instructor in Surgery.
 Gordon Cameron, M.D., Sessional Lecturer in Anatomy.
 D. J. Moffat, M.D., Sessional Instructor in Anaesthesia.
 N. W. Nix, M.D., Sessional Instructor in Anaesthesia.
 Robert Stewart Fraser, B.Sc., M.D., M.Sc., F.R.C.P.(C), Associate Professor
 of Research under Muttart Fellowship.
 Adam S. Little, M.D., Teaching Fellow in Medicine.
 Louis Emile Beauchamp, B.S., M.D., from Instructor to Lecturer in Paediatrics.
 Lloyd Carl Grisdale, B.Sc., M.D., from Instructor to Lecturer in Paediatrics.
 Heman Brock Armstrong, B.Sc., M.D., from Instructor to Lecturer in Paediatrics.
 Donald Forbes Cameron, M.B.E., m.i.d., B.A., M.D., from Sessional Demonstrator to Sessional Lecturer in Physiology.
 Sidney Spaner, B.A., M.D., from Assistant Clinical Professor to Clinical Professor and Head of Department of Psychiatry.
 Alexander Donald MacPherson, M.D. from Lecturer to Assistant Clinical Professor of Psychiatry.
 Harvey Leslie Hogge, B.Sc., from Sessional Instructor to Lecturer in Preventive Medicine.
 George Leslie Willox, M.D., F.R.C.S.(C), F.A.C.S., from Lecturer to Assistant Clinical Professor of Surgery.
 Bohdan Michalyshyn, M.D., F.A.C.S., from Lecturer to Assistant Clinical Professor of Surgery.
 Donald Cooper Johnston, M.D., from Instructor to Lecturer in Orthopaedic Surgery.
 Robert Robertson Francis, B.A., M.D., F.R.C.S.(C), F.A.C.S., from Instructor to Lecturer in Urologic Surgery.
 James Overgard Metcalfe, B.Sc., M.D., F.R.C.S.(C), from Instructor to Lecturer in Urologic Surgery.
 Colin Andrew Ross, M.D., F.R.C.S.(C), from Sessional Instructor to Instructor in Clinical Surgery.
 Kenneth Andrew Connal Clarke, M.C., B.Sc., M.D., from Instructor to Assistant Clinical Professor of Rhino-Oto-Laryngology.
 William Sloane Seale Armstrong, M.D., C.M., from Lecturer to Assistant Clinical Professor of Rhino-Oto-Laryngology.
 John Winston Duggan, M.D., M.M.S., F.R.C.S.(C), F.A.C.S., from Instructor to Lecturer in Ophthalmology.
 Robert Lawrence Wiggins, B.A., M.D., F.R.C.S.(C), from Instructor to Lecturer in Ophthalmology.
 William Douglas Frew, M.B., Ch.B., D.R.C.O.G., F.R.C.S.(C), F.A.C.S., from Instructor to Lecturer in Obstetrics.
 Douglas Campbell Ritchie, B.Sc., M.D., F.A.C.S., from Instructor to Lecturer in Obstetrics.
 Donald Munns Bell, M.D., F.R.C.S.(C), from Instructor to Lecturer in Obstetrics.
 Eby Quehl, m.i.d., M.D., M.R.C.O.G., from Instructor to Lecturer in Obstetrics.

John Angus Boyd, B.A., M.D., from Sessional Instructor to Instructor in Obstetrics.

Hector Ewart Duggan, M.D., from Assistant Clinical Professor to Clinical Professor and Head of the Department of Radiology.

Andrew Cairns, M.D., from Sessional Instructor to Instructor in Clinical Medicine.

Floyd Silas Beverly Rodman, M.Sc., Ph.D., from Lecturer to Assistant Clinical Professor of Therapeutics.

James Alan Longmore Gilbert, M.B., Ch.B., M.D., F.R.C.P., M.R.C.P., F.R.C.P.(C), from Assistant Clinical Professor to Clinical Professor of Medicine.

James Scott Thompson, B.A., M.A., M.D., from Associate Professor to Professor of Anatomy.

School of Physical Education

Orville Murray Wenstob, Sessional Lecturer.

Stephen Mendryk, B.Ed., in Phys Ed., Lecturer.

Herbert John McLachlin, B.Sc. in Physical Education, M.S., from Assistant to Associate Professor of Physical Education.

Administration

Murray Alexander Rousell, B.Com., C.A., from Associate Professor to Professor rank.

Table III—Leave of Absence

Dorothy Lampard, B.A., M.A., Assistant Professor of Education.

Lobita Wilson, B.A., M.A., Lecturer in Psychology.

Henry Bertram Mayo, M.A., D.Phil., Professor of Political Science.

Earl William Buxton, B.A., B.Ed., M.A., Associate Professor of Education (Calgary Branch).

Wilfred Watson, B.A., M.A., Ph.D., Associate Professor of English.

William Mackenzie, B.Sc., B.Litt., M.S., Associate Professor of Economics.

Hector Robert MacLean, D.D.S., F.A.C.D., F.I.C.D., Professor of Operative Dentistry.

Harry Theodore Sparby, B.Sc., M.A., Associate Professor of Education.

David Panar, M.Sc., Associate Professor of Mechanical Engineering.

Stuart George Davis, M.Sc., Ph.D., Associate Professor of Chemistry.

William Donald Smith, B.P.H.E., M.A., Associate Professor of Physical Education.

John Benjamin Taylor, A.O.C.A., Assistant Professor of Art.

Alexander Smith, B.A., LL.B., Professor of Law.

John Alfred Toogood, B.Sc., Ph.D., Associate Professor of Soil Science.

Table IV—Retirements

Gertrude Cornelia Higgin, B.A., L.R.S.M., Associate Professor of Education.

Herbert Edgar Smith, B.A., M.A., M.Ed., Ph.D., Professor and Dean, Faculty of Education.

Albert Stephen Ward, B.S.A., M.Sc., Assistant Professor of Soil Science.

Percival Sydney Warren, B.A., A.R.C.S., Ph.D., F.R.C.S., Professor of Geology.

Table V—Resignations

Frank James Hastie, B.Sc., Associate Professor of Electrical and Mechanical Engineering and Superintendent of Buildings.

Gordon Fraser Sleigh, M.A., B.Litt., Lecturer in English.
 Marjorie Sherlock, B.A., M.A., B.L.S., Librarian to the University.
 Melba Mae Wilson, B.A., B.L.S., Library Assistant.
 Arthur Bennett Lamb, B.Sc., M.Sc., M.C.I.C., Assistant Professor of Bacteriology.
 Andrew Lee Scott, B.A.Sc., M.A.Sc., Assistant Professor of Chemical Engineering.
 Charles Lefebvre, M.D., Instructor in Clinical Medicine.
 Ronald William Nablo, B.A., Supervisor, Division of Visual Instruction, Department of Extension.
 Robert L. Wiggins, M.D., Lecturer in Ophthalmology.
 Gerald Goodall-Copesteake, B.A., D.M.R.D., M.R.C.S., L.R.C.P., Instructor in Radiology.
 Dorothy Edith Ryder, B.A., B.L.S., Library Assistant.
 Flora Macleod, M.A., B.L.S., Extension Librarian.
 James Mills Shipley, B.A., LL.B., B.L.S., Law Librarian.

Table VI—Gifts

From the Merrill Muttart Foundation, annual contribution of \$6,000 for Medical Research.

From Mrs. Irene Gonsett, \$750 for purchase of books for the Gonsett Collection.

From Messrs. A. Reyrolle & Co. Ltd., England, protective gear for electrical transmission lines, valued at over \$1,000, to Department of Electrical Engineering.

From Mr. N. D. McDermid, \$1,000 towards a trust fund being set up in his name by the University.

From Eli Lilly & Co., \$1,800 for research under Dr. M. J. Huston.

From John & Mary R. Markle Foundation, \$6,000 for the third year of the Foundation's scholarship.

From the Barley Improvement Institute, \$3,500 for research in the Department of Plant Science.

From the Dominion Department of Labor, \$900 for research in Department of Political Economy.

From Mr. Sidney Fisher, \$900 for the purchase of a Fourth Folio of Shakespeare.

From the Smith, Line & French Laboratories, \$1,800 for research under Dr. M. J. Huston.

From the Ciba Company Ltd. \$300 for microphotographs of crystals and alkaloids, Faculty of Pharmacy.

From the Maple Leaf Milling Co., \$500 for research on Soft Wheat.

From Mr. D. S. Harvie, \$100 to add to the permanent collection of paintings, Banff School of Fine Arts.

From Dr. J. A. Romeyn, \$50 for the purchase of books on Ophthalmology for the library.

From the Canadian Foundation for the Advancement of Pharmacy, \$1,200 for a teaching fellowship in Pharmacy.

From the Egerton Pope Reporting Club, \$75 to the Medical Loan Fund.

From the Geophysical Associates of Canada, completely equipped Geophysical truck.

From Mr. Eric Harvie, \$100 to the Banff School of Fine Arts.

From the Dominion Department of Mines and Technical Surveys, \$2,150 for research in Department of Geology.

From the Ellison Milling & Elevator Company, \$250 for research on Soft Wheat.

From the Alberta Seed Growers' Cooperative Ltd., \$500 toward Alfalfa research.

From Glenbow Investments Ltd., \$3,000 towards Alfalfa research.

From Imperial Oil Ltd., \$1,676.12 being final payment on an Imperial Oil Investment Study conducted by Department of Political Economy.

From Mr. W. J. Dick, Commission Chairman, a copy of "The Co-terminous Boundary Commission Reports" to the Library.

From Mr. D. E. Lewis, a copy of the three-volume work "Canadian Oil and Gas" of which he is co-author.

From the Department of Agriculture, Province of Alberta, \$1,000 for Soil and Feed Testing Laboratory.

From the Western Division, United Grain Growers Ltd., \$300 for nutritional research on turkeys.

From Calgary Power Ltd., \$100.00 for the purchase of a system analyser in Department of Electrical Engineering.

From the Ukrainian Ladies' Aid, St. John's Orthodox Church, \$25 to the Ukrainian book collection.

From Dr. C. Megas, \$50 to Medical Class of 1941 Loan Fund.

From Dr. H. Baden-Powell, \$50 to the Post Graduate Scholarship Fund in Dentistry.

From S. J. Helman, a set of 150 volumes entitled "Revised Reports" to the Law Library.

From the Edmonton Hospital Pharmacists' Association, \$25 to the Faculty of Pharmacy.

From the Interprovincial Cooperatives Ltd., \$500 towards work in soil research.

From the College of Physicians and Surgeons, \$600 to the Medical Library.

From Mr. D. S. Harvie, \$57 for brass title plates for the additions to the Permanent Collection of Paintings at the Banff School.

From Imperial Oil Ltd., geophysics equipment for the Department of Physics.

From Canadian Industries Ltd., \$5,500 for research under direction of Dean Hardy.

From Pfizer Canada Division, Pfizer Corporation \$25; Charles E. Frosst & Co. \$75; Sandaz (Canada) Ltd. \$50; Burroughs Wellcome & Co. (Canada) Ltd. \$50; to the Department of Physiology and Pharmacology.

From the Alberta Chapter of the Canadian Foundation for Poliomyelitis, \$200 to the Rutherford Library for medical books and periodicals.

From the Alberta Tuberculosis Association, \$200 to the Rutherford Library.

From Imperial Oil Ltd., \$13,000 being first payment on a total grant of \$26,000 to cover the cost of a study of the oil industry under Dr. E. J. Hanson.

From the Edmonton Civic Employees, \$10,000 for the McEachern Cancer Research Laboratory.

From Robin Hood Flour Mills Ltd., \$500 for research on Soft Wheat.

From the Canadian Institute of Timber Construction, \$150 for an investigation of laminated wood beams.

From the United Grain Growers Ltd., \$500 in support of oil seed research.

From Dr. Lorne Pierce, \$500 to establish Bliss Carman award for ballad and lyric poetry at the Banff School of Fine Arts.

From Sherritt Gordon Mines Ltd., \$1,700 and from Harrisons and Crosfield (Canada) Ltd. \$500, being second annual instalments for research on the uses of nitrogen as a fertilizer.

From Unesco, through the International Association of Meteorology, Radiation Commission, \$799 for a radiation standard study.

From Canadian Industries Ltd., \$500 for the wildlife conservation project.

From the Carnegie Corporation of New York, \$13,500 being first payment for the development of educational research.

To the Friends of the University, \$5,342.

From the Canadian Cancer Society, Alberta Division, \$12,396.19 for research at the University.

From the National Cancer Institute of Canada, \$11,562.26 for research and equipment at the University.

To the Alberta Educational Research Fund, \$2,159.

From the Department of National Defence, \$12,600 for research projects at the University.

From the Department of Agriculture, Government of Canada, \$23,450 for research in the Faculty of Agriculture.

From the National Research Council, \$90,871.38 for research projects at the University.

To the Banff Scholarship Fund, \$1,030.

Table VII—New Scholarships and Prizes

From the Women's Auxiliary to the Calgary Druggists' & Drug Travellers' Association, \$50 prize for outstanding merit in the pharmacy courses of the first year.

From the Schlumberger Well Surveying Corporation, a \$500 scholarship with matching grant of \$500.

From the Shell Oil Company, an additional grant of \$500 to accompany scholarship.

From Dr. & Mrs. F. J. Folinsbee, the James Patrick Folinsbee Memorial Prize in Creative Writing of \$100.

From the Canadian Foundation for the Advancement of Pharmacy, an entrance bursary of \$250, Faculty of Pharmacy.

From Burroughs Wellcome & Co. (Canada) Ltd., a scholarship in Pharmacy of \$250.

From the Alberta Teachers' Association, 11 scholarships of \$500 each.

From the International College of Dentists, a \$100 scholarship to a student completing the third year in Dentistry.

From the Alberta Dairymen's Association, a scholarship of \$500 in Dairying.

From the Alumni Association, a prize of \$100 for the most outstanding work done in any medium within the Art Department.

From the College of Physicians and Surgeons, an increase in their research fellowship from \$1,000 to \$1,200, plus payment of third year medical fees.

The Canadian Feed Manufacturers Association (Alberta Division) scholarship of \$150 to a third year student in Agriculture majoring in nutrition in the Department of Animal Science.

Alberta Branch of the Canadian Seed Growers' Association Scholarship of

\$150 to a third year student in Agriculture majoring in the Department of Plant Science.

From Dr. J. W. Pearce, The Ardrey W. Downs Prize in Physiology of an instrument useful in medical practice to a medical student who obtains the highest mark in physiology of the first and second years.

From the Alberta Home Economics Association, the Mabel Patrick Scholarship in Household Economics of \$100.

Mobil Oil Scholarship in Geology and Petroleum Engineering decreased from \$500 to \$400, but with an additional grant to the University of \$400 in each case.

Shell Oil Fellowship, an additional grant to the University of \$500.

Cominco Graduate Research Fellowship, increase in grant-in-aid from \$200 to \$400.

The Alberta Dental Association Scholarship of \$300 in the pre-professional course provided that the student enters first year Dentistry and his overall average is 75% or higher.

From the Association of Professional Engineers of Alberta, the John A. Allan Memorial Scholarship in Geology of \$200 to the student obtaining the highest average standing in all the prescribed courses of first year Geology.

The Association of Professional Engineers of Alberta Gold Medal in Geology to the student with the highest general standing in final year of Geology.

From the Calgary Section of the Council of Jewish Women, \$100 scholarship to the student making the highest standing in first year Education, Calgary Branch.

From the Calgary French Alliance, two prizes of \$15 each to the students coming from high school with the highest marks in French, who plan to continue with French at Calgary Branch.

Increase in the James McNish Chalmers Memorial Prize given by Miss Clare McKinlay from \$35 to \$50.

Four Hudson's Bay Co. Merchandising awards of \$100 each to four students completing second year Commerce.

From the American Women's Club, a bursary of \$500 in Physiotherapy.

Table VIII—Staff Publications

Department of Agricultural Engineering

Lawrence, R. P. and Stephanson, B.T., Farm Safety, Agr. Inst. Rev. 10(6): 30-32. 1955.

MacHardy, F. V. and Clandinin, D. R. Laying-House Plan. Farm Plan No. 1 Reprint, 1955.

Department of Anatomy

Thompson, J. S. The University of Alberta Faculty of Medicine, Can. Med. Assoc. Journal, 73:129, 1955.

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Department of Animal Science

Berg, R. T. The place of the progeny test in sire selection. Proc. Can. Soc. An. Prod. pp. NIII-1-8. 1955.

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swine fed an antibiotic supplement and/or Vigofac. *Proc. Am. Soc. An. Prod.*, p. 1243. 1955.

McElroy, L. W. More brandable beef from hay or silage and pasture. *Can. Cattlemen*. February, 1956.

Robblee, A. R. and Clandinin, D. R. The use of 2-amino, 5-nitrothiazole for the induction of moult in yearling hens. *Poultry Sci.* 34:991-995. 1955.

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Department of Bacteriology

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Carmichael, J. W. The Cellophane Technique for Studying Morphology and Hyphal Fusions in Fungi. In press, *Mycologia*.

Carmichael, J. W. Frozen Storage for Stock Cultures of Fungi. In press, *Mycologia*.

Carmichael, J. W., G. Bain, and J. F. Elliott. Coccidioidomycosis — Case Report and Diagnostic Method. In press, *Can. Med. Assoc. J.*

Myers, G. E. The Effect of a new Antiseptic (1:6-di-4'-chlorophenyl-diguanidohexane) on Skin Flora. *Can. J. Microb.*, 2, 87, April 1956.

Stirrat, J. H., J. McLintock, G. W. Schwindt, and K. R. Depner. Bacteria Associated with the Wild and Laboratory-reared Horn Flies, *Siphona irritans* (L) (Diptera: Muscidae), *J. Parasit.*, 41, 398-406, August 1955.

Stuart, R. D. The Importance of Urinary Antibodies in the Diagnosis of Leptospirosis. *Can. J. Microb.*, March 1956.

Stuart, R. D. The Broad Spectrum Antibodies: Assessment of Their Current Value. *Alberta Med. Bull.* 20, 27, 1955.

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Department of Biochemistry

Collier, H. B., and Sheila C. McRae. Antioxidants as inhibitors of linoleate oxidation catalyzed by plant lipoxidase and by hemolyzates of human erythrocytes. *Can. J. Biochem. Physiol.* 33: 773-779, 1955.

Kovacs, L., and J. Tuba. A note on the energy of activation of the amylase in various body fluids. *Can. J. Biochem. Physiol.* 34: 6-9. 1956.

Solvonuk, P. F., Sheila C. McRae, and H. B. Collier. Creatine phosphokinase activity of mammalian erythrocytes. *Can. J Biochem Physiol* 34: 481-487. 1956.

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Department of Botany

Cormack, R. G. H. The effect of extreme shade upon leaf form and structure in *Vivia americana*. *Canad. Jour. Bot.* 33: 293-297. 1955.

Cormack, R. G. H.. Action of pectic enzymes on surface cells of living *Brassica* roots. *Science* 122: 1019-1020. 1955.

Kennedy, Lorene L. *Dacrymyces palmatus*. *Mycol.* 48: No. 2. 1956.

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Department of Chemical and Petroleum Engineering

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Department of Chemistry

Betts, R. H., Harris, W. E., and Stevenson, M. D. The Partial Separation of Na^{22} from Na^{24} by Ion Exchange Chromatography. *Can. J. Chem.* 34: 65. 1956.

Brown, J. J. and Brown, R. K. The preparation of O- and p- Acetaminobenzaldehydes. *Can. J. Chem.* 33: 1819. 1955.

Brown, R. K., Snider, R. F. and Stevenson, M. D. Some Indole Derivatives tested for Antitubercular Activity. *J. Or. Chem.* 21: 261. 1956.

Dunford, H. B. and Morrison, J. L. The Heat of Wetting of Silk Fibroin by Water. *Can. J. Chem.* 33: 904. 1955.

Department of Civil and Municipal Engineering

Hardy, R. M., "Diagnosis and Treatment of Slide Conditions Affecting Highway", *Roads and Engineering Construction*, October 1955, pp. 151-156. 1955 Proceedings *Can. Good Roads Assoc.*, pp. 107-113.

Hardy, R. M., "Engineering Characteristics of Western Muskeg", *Proceedings of the Western Muskeg Research Meeting March 2, 1955, National Research Council of Canada Technical Memorandum No. 38*, Sept. 1955.

Blench, T., "Practical Regime Theory Design of Artificial Channels with Self-Adjustment Boundaries". *ASCE Conference at St. Louis*. June, 1955.

Blench, T., "Regime Formulas for Bed-Load Transport". *Proceedings International Association for Hydraulic Research*. Sept., 1955.

Ford, G. and Morrison, I. F. *Physical Properties of Solid Materials*. Hamly Press.

Department of Dairying

Thornton, H. R. Canadian Dairy Research. *Can. Dairy and Ice Cream J.*, 34(7): 29-31, 66, 68. July, 1955.

Wood, F. W. and Thornton, H. R. Colour Variations in Alberta Butters. *Can. Dairy and Ice Cream J.* 34 (10): 33-36. October, 1955.

Wood, F. W. and Thornton, H. R. A Laboratory Continuous Buttermaking Machine. *Can. Dairy and Ice Cream J.* April, 1956.

Faculty of Education

Articles

Baer, G. F. A. Do We Educate for Democracy? *A.T.A. Magazine*, Vol. 36, No. 8.

Clarke, S. C. T. Normal Mental, Social and Emotional Development. *Alberta School Trustee*, Vol. 26. No. 1.

Clarke S. C. T. Students Who Drop Out of School. *Alberta School Trustee*, Vol. 26, No. 4.

Coutts, H. T. Growing Pains in Education. *Alberta School Trustee*, Vol. 25, No. 11.

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Dunlop, G.M. Educational Research in Alberta. *Alberta School Trustee*, Vol. 26, No. 3.

Dunlop, G. M. Educational Research in Alberta. *A.T.A. Magazine*, Vol. 36 No. 3.

Dunlop, G. M. Insights into the Learning Process. *Canadian Education*, Vol. 10, No. 4.

MacArthur, R. S. Will Your Work Conference Work? *Educational Courier*, Vol. 26, No. 1. (Also in *The Bulletin*, Vol. 35, No. 4.)

Smith, H. E. Methodologies in Education—Administration for What? *Canadian Education*, Vol. 10, No. 4.

Worth, W. H. A Leadership Course for Principals. *The A.T.A. Magazine*, Vol. 36, No. 5, January 1956.

Books

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Finn, T. G. and McDougall, W. D. *Canada and the Western World*, W. J. Gage & Company, Toronto, 1955.

Clarke S. C. T., Woodsworth, J. G. *Youth and Tomorrow*, McClelland and Stewart Limited, Toronto, 1956.

Department of English

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Kreisel, H., "Foreign Fiction" (review of *The Night of Time* by Rene Fulop-Miller) *Queen's Quarterly*, pp. 625-626, Winter 1956.

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Salter, F. M. *Mediaeval Drama in Chester* (The Alexander Lectures for 1954) University of Toronto Press, 1955.

Salter, F. M. *Thought and Expression*, by Coutts, Chalmers, Meade, Salter and Waddell (a textbook for English 30 in Alberta schools.) Longman's Green & Co., Toronto, 1955.

Scargill, M. H. "Linguistics in Canada," *Bulletin of the Humanities Association of Canada*, p. 2,, January, 1956.

Scargill, M. H. "Eighteenth Century English in Nova Scotia," *Journal of the Canadian Linguistic Association*, p. 1, March, 1956.

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White, Alison G. "Mother Goose Reread," *Southern Folklore Quarterly* XIX: 156-164, 1955.

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Department of Entomology

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Strickland, E. H. and Hocking, B. Insect pests of grain in Alberta. Univ. Alta. Bull. 24 (4th revision), 66pp. January, 1956.

Department of Geology

Folinsbee, R. E. with Moore, J. C. Matthews Lake N.W.T., Map and cross-sections. Geol. Survey of Canada, Map 1024A, 1955.

Folinsbee, R. E. with Lipson, J. and Reynolds, J. H. Further Application of the Potassium-Argon Method of Age Determination. Abstract from program Cordilleran Section, Geol. Soc. America, 1955.

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Table IX—Student Registration

TOTAL REGISTRATION																		
Full Session, Summer Ses- sion, Evening Divis. and Short Courses	1st Year 55-56		2nd Year 55-56		3rd year 55-56		4th Year 55-56		5th Year 55-56		Not Stated 55-56		Males		Females		TOTAL	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	54-55	55-56	54-55	55-56	54-55	55-56
1. Arts & Science																		
Edmonton																		
B.A.	50	51	57	44	61	43	3	2	...	...	...	...	137	171	134	140	271	311
B.Sc.	135	34	130	23	78	16	12	5	...	...	...	...	299	355	87	78	386	433
B.A., B.Com.	4	...	...	...	...	...	...	...	...	...	...	...	3	4	...	...	2	4
B.A., B.Sc. (Eng.)	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	1	1
B.A., LL.B.	33	2	15	1	...	...	1	...	...	...	...	...	53	48	5	3	58	51
Pre-dental	32	1	...	...	...	...	...	...	...	...	...	...	25	32	1	1	26	33
Dip. in Art	...	4	2	...	...	2	...	...	...	...	...	...	...	...	3	8	3	8
	254	92	202	70	139	61	16	7	...	...	...	...	517	611	230	230	747	841
Partials—regular	...	...	...	...	...	...	...	...	...	...	...	...	17	28	10	16	27	44
Partials—Even. Div.	...	...	...	...	...	...	...	...	...	...	...	...	14	18	17	15	31	33
Calgary																		
B.A.	9	6	1	...	...	1	...	...	...	...	...	...	7	10	8	7	15	17
B.Sc.	23	2	...	...	...	...	...	...	...	...	...	...	16	23	...	2	16	25
B.A., LL.B.	5	1	...	...	...	...	...	...	...	...	...	...	3	5	...	1	3	6
Pre-dental	7	...	...	...	...	...	...	...	...	...	...	...	3	7	...	...	3	7
B.A., B.Com.	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1
	45	9	1	...	...	1	...	...	...	...	...	...	29	46	8	10	37	56
Partials—regular	...	...	...	...	...	...	...	...	...	...	...	...	1	6	3	3	4	9
Partials—Even. Div.	...	...	...	...	...	...	...	...	...	...	...	...	2	1	1	...	3	1
Lethbridge																		
Partials—Evening	...	...	...	...	...	...	...	...	...	...	...	...	1	2	1	...	2	2
Medicine Hat	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...
Partials—Evening	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Red Deer	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	2
Partials—Evening	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vegreville	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1
Partials—Evening	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Arts & Sci. FULL TIME	299	101	203	70	139	62	16	7	...	...	...	...	546	657	238	240	784	897

Table IX—Student Registration—Continued

	1st Year 55-56		2nd Year 55-56		3rd year 55-56		4th Year 55-56		5th Year 55-56		Not Stated 55-56		Males 54-55 55-56		Females 54-55 55-56		TOTAL 54-55 55-56	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
2. Agriculture	36	...	23	...	27	2	16	...	...	...	...	...	84	102	3	2	87	104
Partials	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3. Commerce	48	8	23	6	28	3	...	...	...	...	...	...	94	99	14	17	108	116
Edmonton	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	3	3
Partials	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	...	3	3
Even. Divs.	...	...	...	...	...	...	...	...	...	...	...	...	...	7	11	7	12	12
Calgary	11	1	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...
Partials	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Even. Divs.	...	...	...	...	...	...	...	...	...	...	...	...	2	3	...	1	2	4
Commerce—Full Time	59	9	23	6	28	3	...	...	...	...	...	...	101	110	14	18	115	123
4. Dentistry	26	1	29	...	28	...	29	1	...	...	...	...	116	112	2	2	118	114
Partials	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	2
5. Education	35	84	40	98	39	41	27	34	...	...	...	...	133	142	243	257	376	399
Edmonton	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	2
B.Ed.—4 year	1	...	...	...	1	...	1	...	...	...	...	...	3	1	...	...	3	1
B.Ed. in Agric.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
B.Ed. in Ind. A	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
B.Ed. foll. pass B.A.,	15	6	6	...	6	3	13	11	...	...	...	...	28	31	10	11	38	44
B.Sc. etc.	67	172	...	...	...	...	4	...	...	...	...	...	62	67	185	172	247	239
B.Ed. in Phys. Ed.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Jr. E.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Edmonton—Full Time	118	262	46	98	46	44	45	49	...	...	...	...	244	256	451	453	695	709
Partials—regular	...	...	...	...	...	...	...	...	...	...	...	...	14	17	26	13	40	30
Partials—Even. Div.	...	...	...	...	...	...	...	...	...	...	...	...	38	60	72	78	110	138
Calgary	12	26	8	18	...	...	1	...	...	...	...	...	21	21	41	44	62	65
B.Ed.—4 year	6	...	13	...	6	...	...	...	...	...	...	...	18	25	...	...	18	25
B.Ed. in Ind. Arts	...	...	...	...	...	...	...	...	...	...	...	...	2	2	...	...	2	3
B.Ed. foll. B.A., B.Sc. etc.	37	118	...	...	...	1	2	...	...	...	...	...	40	37	118	118	158	155
Junior E.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Calgary—Full Time	55	144	21	18	6	1	3	...	...	...	...	...	81	85	159	163	240	248
Partials—Regular	...	...	...	...	...	...	...	...	...	...	...	...	17	22	31	26	48	48
Partials—Even. Div.	...	...	...	...	...	...	...	...	...	...	...	...	15	13	8	25	23	38
Lethbridge	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Partials—Even. Div.	...	...	...	...	...	...	...	...	...	...	...	...	19	13	17	15	36	28
Medicine Hat	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Partials—Even. Div.	...	...	...	...	...	...	...	...	...	...	...	...	8	6	12	3	20	9

[illegible]

Table IX—Student Registration—Continued

	1st Year 55-56		2nd Year 55-56		3rd year 55-56		4th Year 55-56		5th Year 55-56		Not Stated 55-56		Males 54-55 55-56		Females 54-55 55-56		TOTAL 54-55 55-56	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	54-55	55-56	54-55	55-56	54-55	55-56
13. Graduate Studies																		
M.A.	22	27	9	11	31	38
M.Sc. (Arts)	27	31	...	...	27	31
M.Sc. (Agric.)	12	15	...	1	12	16
M.Sc. (Engin.)	19	15	...	...	19	15
M.Sc. (Pharm.)	3	3	...	...	3	3
M.Sc. (Medicine)	3	5	...	...	3	5
M.Ed.	27	38	6	8	33	46
Ph.D.	13	11	...	1	13	12
B.D.	14	17	...	...	14	18
Special Grad.	38	33	3	6	41	39
Partials													178	195	18	28	196	223
Even. Div. Vegreville-M.Ed.	1	...	...	...	1
Even. Div. Edmonton																		
M.A.	1	...	...	...	1
M.Ed.	11	9	2	1	13	10
Special Grad.	12	2	1	1	13	3
Even. Div. Calgary																		
Special Grad.	1	...	...	...	1	...
M.Ed.	1	...	...	...
Total Full-Time Students	1013	710	656	359	525	245	309	79	...	34	1	...	2475	2699	1411	1455	3886	4154
14. Auditors—regular																		
Evening Div. Edmonton	2	3	2	4	4	7
Evening Div. Calgary	8	7	10	5	18	12
Evening Div. Lethbridge	9	1	17	...	26	1
Medicine Hat	1	1	1	1
Evening Div. Vegreville	1	...	4	...	5	...
15. Partials—regular																		
Evening Div. Edmonton	56	85	74	61	130	146
Evening Div. Calgary	77	92	93	96	170	188
Evening Div. Lethbridge	20	17	10	26	30	43
Evening Div. Medicine Hat	20	15	19	15	39	30
Evening Div. Red Deer	9	6	12	3	21	9
Evening Div. Vegreville	9	9	23	32	32
	20	...	4	...	24

15.	Specials—regular .....	...	...	...	...	...	...	...	...	5	11	5	4	10	15
	Evening Div. Edmonton .....	...	...	...	...	...	...	...	...	3	5	3	4	9	5
	Evening Div. Calgary .....	...	...	...	...	...	...	...	...	15	3	1	2	16	5
	Calgary—regular .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Evening Div. Lethbridge .....	...	...	...	...	...	...	...	...	2	...	1	...	3	...
	Evening Div. Medicine Hat .....	...	...	...	...	...	...	...	...	...	...	...	2	...	2
	Evening Div. Red Deer .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Evening Div. Vegreville .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Totals of Full-Time, Audi-	...	...	...	...	...	...	...	...	2702	2973	1660	1706	4362	4679
	tors, Partials and Specials	...	...	...	...	...	...	...	...	...	...	...	...	...	...
II.	Summer Session 1955	...	...	...	...	...	...	...	...	644	727	964	947	1608	1674
	Edmonton .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Banff School .....	...	...	...	...	...	...	...	...	8	5	31	35	39	40
	University credit .....	...	...	...	...	...	...	...	...	64	85	345	361	409	446
	Non-credit courses .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
III.	Short Courses	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Diploma in Dairying .....	...	...	...	...	...	...	...	...	14	11	...	...	14	11
	Dip. in Advan. Prac. Obs. .....	...	...	...	...	...	...	...	...	...	13	12	12	13	12
	Grand Totals	...	...	...	...	...	...	...	...	3432	3801	3013	3061	6445	6862

Table X—Distribution of Students According to Age and Sex

Age	Male	Female	Total
16	14	10	24
17	131	184	315
18	347	389	736
19	430	308	738
20	429	229	658
21	335	151	486
22	256	82	338
23	214	36	250
24	148	32	180
25	96	17	113
26	83	15	98
27	83	15	98
28	49	15	64
29	49	7	56
30	38	6	44
31	20	13	33
32	24	13	37
33	17	9	26
34	20	12	32
35	21	5	26
36	13	13	26
37	17	8	25
38	19	5	24
39	20	10	30
40	15	12	27
41	14	7	21
42	7	8	15
43	10	8	18
44	9	6	15
45	7	6	13
46	8	9	17
47	5	11	16
48	8	12	20
49	4	8	12
50	.....	10	10
51	3	5	8
52	1	7	8
53	3	5	8
54	.....	1	1
55	1	1	2
56	2	1	3
57	.....	1	1
58	.....	1	1
59	2	.....	2
60	.....	.....	.....
61	.....	1	1
62	.....	1	1
63	.....	1	1
Not stated	1	.....	1
	<u>2973</u>	<u>1706</u>	<u>4679</u>

Table XI—Classification of Students According to Religious Denomination

Anglican	538
Baptist	170
Christian Science	10
Church of Christ	1
Church of Nazarine	15
Greek Catholic	89
Greek Orthodox	231
Hebrew	87
Later Day Saint (Morman)	108
Lutheran	275
Methodist	6
Presbyterian	161
Protestant (church not specified)	55
Roman Catholic	724
Seventh Day Adventist	10
Ukrainian Orthodox	38
United	1816
Others	206
Not specified	139
	<hr/>
	4679
	<hr/>

Table XII—Distribution of Students According to Sex and Marital Status

	<i>Male</i>	<i>Female</i>	<i>Total</i>
Single	2388	1550	3938
Married	583	128	711
Divorced		10	10
Widowed	2	17	19
Not stated		1	1
	<hr/>	<hr/>	<hr/>
	2973	1706	4679
	<hr/>	<hr/>	<hr/>

Table XIII—Distribution of Students According to Birthplace of Father

A. *British Empire—Commonwealth*

(a) *Canada*

Alberta: Edmonton	96
Calgary	52
Lethbridge	13
Medicine Hat	10
Red Deer	10
Vegreville	9
Wetaskiwin	18
Camrose	8
Cardston	15
Grande Prairie	1
On or North of Twp 38	212
South of Twp. 38	118
Not specified	81

 643

Canada — not otherwise specified	103	
Newfoundland	4	
Nova Scotia	88	
Prince Edward Island	31	
New Brunswick	44	
Quebec	110	
Ontario	547	
Manitoba	182	
Saskatchewan	136	
British Columbia	41	
Yukon and N.W.T.	1	
	—	1930
<i>(b) Other Parts of the British Empire-Commonwealth</i>		
British Isles (including Eire)	766	
Dominions (S. Africa, New Zealand, Australia)	3	
All other British colonies, dependencies and members of the Commonwealth (including India, Pakistan, Ceylon, Rhodesia, Kenya, Guiana, etc.)	10	
	—	779
<i>B. Countries Outside British Empire-Commonwealth</i>		
United States of America	539	
Poland and Czechoslovakia	221	
Russia and Ukraine	382	
Balkan States (Yugoslavia, Roumania, Bulgaria, Albania, Greece, Turkey)	61	
Scandinavian States (Sweden, Norway, Denmark, Iceland, Finland)	159	
Germany, Austria (including Austria-Hungary)	228	
France	11	
Hungary	37	
China and Japan	62	
Holland	41	
Others	111	
	—	1852
Information not specified		118
		—
TOTAL		4679
		—

Table XIV—Distribution of Students According to Father's Occupation

<i>Occupational Classification and Occupation</i>	<i>Number</i>	<i>Totals</i>
<i>Professional</i>		
Accountants, Auditors	62	
Dentists	21	
Doctors	65	
Lawyers	57	
Ministers	52	
Pharmacists, druggists	31	
Professors, teachers	157	
Engineers and Land Surveyors	79	
Others	12	
	—	536

Business and Finance

Garage, service station managers and employees	69
Grain, oil, implement agents, livestock dealers	80
Hotelkeepers, restaurateurs and employees (including Motels)	91
Insurance, real estate, bond salesmen, stockbrokers	81
Retail Merchants, grocers, shopkeepers, clerks	234
Bank Employees	27
Wholesale managers, Clerks, Warehousemen	88
Salesmen, Commercial Travellers, Manufacturers' Agents	84
Advertising	31
Others	127

912

Industry

Assayers, Industrial Chemists	2
Bakers, brewers	18
Dairy and creamery owners and employees	18
Farmers, ranchers, dairy farmers, poultry farmers, and market gardeners	1183
Contractors, builders	64
Lumbermen, building supplies etc.	34
Manufacturers, factory foremen, employees etc.	46
Oil and Coal industry, Managers and employees	106
Meat packing managers, employees	27
Transportation owners, managers and employees	206
Others	31

1735

Artisans and Skilled Tradesmen

Barbers, hair dressers	18
Carpenters, masons, bricklayers, plasterers, floor finishers	97
Electricians, radio repair etc.	25
Mechanics, locksmiths, gunsmiths etc.	48
Metal workers, welders, tinsmiths, blacksmiths	33
Machinists, lathe operators	31
Painters and decorators	14
Plumbers, gas and steam-fitters	17
Tailors, pressers, cleaners and dyers, shoemakers	23
Laborers, watchmen	46
Others	42

394

Government Service

Civic or Municipal Employees	56
Provincial Government Employees	60
Dominion Government Employees	68
Armed Services	9
Members of Provincial and Dominion Parliament	1
Judges and Magistrates	6

200

Retired	349
Deceased	470
Not specified	83

4679

**Table XV—Distribution of First Year Students not Previously in Attendance
According to Course and Home Address (excluding Evening Division)**

ATTENDING EDMONTON

COURSE	EDMONTON															Total			
	Calgary	Lethbridge	Medicine Hat	Red Deer	Vegreville	Wetaskiwin	Camrose	Cardston	Grande Prairie	Others (on or North of Twp. 38)	Alberta—not specified	Canada—not specified	Nfld., N.S., P.E.I., N.B., Que., Ont.	Man., Sask., B.C., Yukon, and N.W.T.	British Commonwealth		U.S.A.	Other Countries	Not specified
B.A.	41	5	2	1	4	1	1	1	1	11	14	1	1	4	1	1	1	1	89
B.Sc.	55	7	6	4	2	1	2	2	2	44	21	1	2	5	2	1	1	1	157
B.A., B.Com.	3	34
B.B.A., LL.B.	15	2	1	1	1	1	1	1	1	7	3	1	1	1	1	33
Pre-dent	8	1	2	10	4	1	1	7	2
Diploma in Art	1	33
B.Sc. in Agriculture	1	1	1	...	13	13	1	1	1	1	1	1	1	33
B.Com.	24	3	2	5	...	1	2	4	3	8	6	1	1	1	1	44
B.Sc. in Agriculture	25	3	2	45	18	1	1	1	1	33
B.B.Ed. (General) 4 year course	44
B.B.Ed. in Industrial Arts	109
B.B.Ed. in Physical Education	9	1	2	3	1	2	1	156	23	1	...	2	2	17
Junior E	35	1	...	1	1	...	1	1	1	3	4	2	231
B.Sc. in Civil Engineering	14	5	2	1	1	1	1	1	1	7	6	1	...	2	2	40
B.Sc. in Chemical Engineering	19	4	1	14	8	4	2	48
B.Sc. in Electrical Engineering	6	7	1	1	1	6	8	1	1	29
B.Sc. in Mining Engineering	1	2	5	5	1
B.Sc. in Petroleum Engineering	4	5	1	17
B.Sc. in Engineering Physics	1	1	1	1
B.Sc. in Engineering Geology	1	1	1	1	4	2	34	12	1	1	6	6	2
B.B.Sc. in Engineering (branch not specified)	46	18	7	1	1	1	1	8	1	134
B.Sc. in Household Economics	11	2	2	3	24
B.H.Ec.	4	4	2	2	4	2	18
Diploma in Physiotherapy	5	2	...	1	...	1	9	7	3	3	28
B.Sc. in Nursing	20	2	...	1	1	1	1	20	16	12	12	76
Diploma in Nursing	16	2	1	2	2	2	3	...	1	16	3	43
B.Sc. in Pharmacy	76
B.Sc. in Pharmacy	76
B.Sc. in Pharmacy	76
B.Sc. in Pharmacy	76
B.Sc. in Pharmacy	76
B.Sc. in Pharmacy	76
B.Sc. in Pharmacy	76
B.Sc. in Pharmacy	76
B.Sc. in Pharmacy	76
B.Sc. in Pharmacy	76
B.Sc. in Pharmacy	76
B.Sc. in Pharmacy	76
B.Sc. in Pharmacy	76
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B.Sc. in Pharmacy	76
B.Sc. in Pharmacy	76
B.Sc. in Pharmacy	76
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B.Sc. in Pharmacy	76
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B.Sc. in Pharmacy	76
B.Sc. in Pharmacy	76
B.Sc. in Pharmacy	76
B.Sc. in Pharmacy	76
B.Sc. in Pharmacy	76
B.Sc. in Pharmacy	76
B.Sc. in Pharmacy	76
B.Sc. in Pharmacy	76
B.Sc. in Pharmacy																			

ATTENDING CALGARY

COURSE	Edmonton	Calgary	Lethbridge	Medicine Hat	Red Deer	Vegreville	Wetaskiwin	Camrose	Cardston	Grande Prairie	Others (on or North of Twp. 38)	Others (South of Twp. 38)	Alberta—not specified	Canada—not specified	Nfld., N.S., P.E.I., N.B., Que., Ont.	Man., Sask., B.C., Yukon, and N.W.T.	British Commonwealth	U.S.A.	Other countries	Not specified	Total
B.A.,	11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	13
B.Sc.	21	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	24
B.A., B.Com.	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6
B.A., LL.B.	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6
Pre-dent	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	11
B.Com.	21	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	37
B.Ed. (Gen.) 4-yr. course	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6
B.Ed. in Industrial Arts	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6
Junior E	27	3	3	3	1	1	1	2	2	2	6	109	2	2	3	3	3	1	1	1	154
B.Sc. in Nursing	9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	11
TOTALS	2 110	5	3	3	1	1	1	1	3	1	9	129	2	1	1	5	1	1	1	1	269

Table XVI—Distribution of Daytime Students by Faculty and Home Address
ATTENDING EDMONTON

FACULTY	Edmonton										Calgary										Lethbridge										Medicine Hat										Red Deer										Vegreville										Wetaskiwin										Camrose										Cardston										Grande Prairie										Others on or North of twp. 38										Others South of Twp. 38										Alberta—not specified										Canada—not specified										Nfld., N.S., P.E.I., N.B., Que., Ont.										Man., Sask., B.C., Yukon, and N.W.T.										British Commonwealth										U.S.A.										Other countries										Not specified										Total																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
	6	10	10	3	1	2	2	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

ATTENDING CALGARY

FACULTY	ATTENDING CALGARY																	Totals			
	Edmonton	Calgary	Lethbridge	Medicine Hat	Red Deer	Vegreville	Wetaskiwin	Camrose	Cardston	Grande Prairie	Others—on or N of Twp. 38.	Others South of Twp. 38	Alberta—not specified	Canada—not specified	Nfld., N.S., P.E.I. N.B., Que., Ont.	Man., Sask, B.C. Yukon, and N.W.T.	British Commonwealth		U.S.A.	Other countries	Not specified
Arts and Science	1	59	1	...	...	...	...	...	...	...	...	3	...	...	...	1	...	...	...	...	65
Commerce	...	8	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	12
Education	3	112	4	3	1	...	...	...	3	...	12	147	...	...	...	9	...	...	1	1	296
Engineering	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Nursing	...	11	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	15
Partials	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
TOTALS	4	193	5	3	1	...	...	...	3	...	16	154	...	...	...	10	...	...	1	1	391

Table XVII—Distribution of Evening Division Students by Faculty and Home Address

ATTENDING EDMONTON

FACULTY	Edmonton	Calgary	Lethbridge	Medicine Hat	Red Deer	Vegreville	Wetaskiwin	Camrose	Cardston	Grande Prairie	Others (on or North of Twp. 38)	Others South of Twp. 38	Alberta—not specified	Canada—not specified	Nfld., N.S., P.E.I., N.B., Que., Ont.	Man., Sask., B.C., Yukon, and N.W.T.	Totals
Arts and Science ..	28	...	1	...	1	...	...	...	...	...	1	...	...	...	...	2	33
Commerce	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
Education	107	2	...	...	...	...	1	...	...	...	21	4	...	...	...	3	138
Graduate Studies ..	14	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	14
Auditors	10	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	12
Specials	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	9
TOTALS	171	3	1	...	1	...	1	...	...	...	23	4	...	...	...	5	209

ATTENDING CALGARY

FACULTY	Edmonton	Calgary	Lethbridge	Medicine Hat	Red Deer	Vegreville	Wetaskiwin	Camrose	Cardston	Grande Prairie	Others (on or North of Twp. 38)	Others—(South of Twp. 38)	Canada—not specified	Nfld., N.S., P.E.I., N.B., Que., Ont.	Man., Sask., B.C., Yukon, and N.W.T.	Totals
Arts & Science	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Commerce	4	...	...	...	...	...	...	...	...	...	...	...	...	...	4
Education	29	...	...	...	...	...	...	...	...	1	7	...	...	...	38
Auditors	1	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Special Students	1	4	...	...	...	...	...	...	...	...	...	...	...	...	5
TOTALS	1	39	...	...	...	...	...	...	...	...	1	7	...	...	1	49

ATTENDING LETHBRIDGE

FACULTY	Edmonton	Calgary	Lethbridge	Medicine Hat	Red Deer	Vegreville	Wetaskiwin	Camrose	Cardston	Grande Prairie	Others (on or North of Twp. 38)	Others (South of Twp. 38)	Alberta—not specified	Man., Sask., B.C., Yukon, and N.W.T.	Totals
Arts & Science	1	...	...	...	...	...	...	...	...	1	...	2
Education	16	1	...	...	...	1	...	...	...	9	...	28
Auditors	1	...	1
TOTALS	17	1	...	...	...	...	1	...	...	...	11	1	31

ATTENDING MEDICINE HAT

FACULTY	Edmonton	Calgary	Lethbridge	Medicine Hat	Others (South of Twp. 38)	Totals
Education	8	1	9
Graduate Studies	1	.....	1
Specials	1	.....	1
TOTALS	10	1	11

ATTENDING RED DEER

FACULTY	Red Deer	Camrose	Others (on or North of twp. 38)	Others (South of Twp. 38)	Totals
Arts and Science .....	.....	.....	1	1	2
Education	19	1	7	3	30
TOTALS	19	1	8	4	32

ATTENDING VEGREVILLE

FACULTY	Vegreville	Others (on or North of Twp. 38)	Totals
Arts and Science .....	.....	1	1
Education	11	11	22
Graduate Studies	1	.....	1
Auditors	1	.....	1
TOTALS	13	12	25

Table XVIII—Distribution of Students According to Pattern, Honors or Branch

	1st Year		2nd Year		3rd Year		4th Year		Not Stated		Total	
	54-55	55-56	54-55	55-56	54-55	55-56	54-55	55-56	54-55	55-56	54-55	55-56
Arts and Science												
B.A.—Pattern												
English	30	23	18	20	13	17	...	...	...	...	61	60
Music	6	4	3	3	2	3	...	...	...	...	11	10
Foreign Lang. or Lit.	9	11	3	6	1	2	...	...	...	...	13	19
History	12	13	8	15	15	14	...	...	...	...	42	35
Phil. or Psych.	26	32	41	26	17	36	1	1	1	1	85	95
Economics	7	5	16	18	13	20	...	...	...	...	36	43
Art	1	1	...	...	1	...	...	...	...	...	2	1
Political Science	2	8	6	3	1	3	...	...	...	...	9	14
Geography .....	...	1	...	...	...	...	...	...	...	...	...	3
Drama .....	...	9	...	2	...	...	...	...	...	...	...	11
No pattern .....	...	3	...	...	...	...	...	...	...	...	...	3
B.Sc.—Pattern												
Chemistry	42	39	28	28	12	21	1	...	...	...	83	88
Mathematics	5	4	4	4	3	3	...	...	...	...	12	11
Physics	4	10	2	3	2	3	...	...	...	...	8	16
Geology	17	29	19	20	35	25	1	1	...	...	72	75
Botany .....	...	1	...	1	...	...	...	...	...	...	...	2
Entomology .....	...	2	1	2	1	1	...	...	...	...	1	5
Zoology	44	55	38	58	11	13	...	...	1	...	94	126
Special B.Sc course	15	12	12	13	15	8	...	...	...	...	42	33
Experimental Psych.	7	9	5	2	2	2	...	...	...	...	14	13
Geography .....	...	1	...	1	...	...	...	...	...	...	...	2
No pattern .....	...	...	4	1	...	...	...	...	...	...	4	1
Engineering												
Civil	50	55	73	76	54	63	36	56	...	2	213	252
Chemical	38	52	44	66	37	36	11	37	...	...	130	191
Electrical	39	36	37	48	28	24	17	24	...	...	121	132
Mining	5	3	11	13	10	12	5	6	...	...	31	34
Petroleum	11	20	11	9	22	8	17	19	...	...	61	56
Engineering Physics .....	...	1	...	...	3	...	2	1	...	...	7	1
Engineering Geology	2	2	...	...	1	...	...	1	...	...	3	3
Not specified	156	140	...	1	...	...	...	...	...	...	156	141
Honors												
Biochemistry	1	2	...	1	2	1	1	2	...	...	4	6
Botany .....	...	1	...	...	...	8	4	4	...	...	...	1
Chemistry	10	8	9	9	5	1	...	...	...	...	28	29
Classics .....	...	1	1	...	...	1	...	...	...	...	1	2

**Table XIX—Student Veterans According to Faculty or School and
Year of Course**

	1st Yr.	2nd Yr.	3rd Yr.	4th Yr.	5th Yr.	Partials	Total
Arts and Science							
B.A.	2	....	....	....	....	10	12
B.Sc.	2	2	2	....	....	2	8
Diploma in Art ....	....	....	....	....	....	1	1
Agriculture—B.Sc. ....	....	....	3	....	....	....	3
Commerce—B.Com. ....	....	1	1	....	....	1	3
Dentistry	2	4	3	3	....	....	12
Education							
B.Ed.—4 year course	1	2	....	2	....	10	15
B.Ed. in Ind. Arts ....	....	1	....	....	....	....	1
B.Ed. foll. pass B.A. etc. ....	....	....	....	1	....	....	1
Junior E.	1	....	....	....	....	....	1
Engineering							
Civil ....	....	....	....	2	....	....	2
Electrical ....	....	1	....	1	....	....	2
Mining ....	....	....	1	....	....	....	1
Household Economics ....	....	1	....	....	....	....	1
Law	2	1	2	....	....	....	5
Medicine	2	1	1	2	....	....	6
Nursing—B.Sc.	3	....	....	....	....	....	3
Dip. in Teach. & Sup. ....	....	....	....	....	1	....	1
Pharmacy ....	....	1	1	....	....	....	2
Graduate Studies							
M.A. ....	....	....	....	....	....	....	11
M.Sc. (Arts) ....	....	....	....	....	....	....	3
M.Sc. (Agric.) ....	....	....	....	....	....	....	3
M.Ed. ....	....	....	....	....	....	....	12
Special Graduates ....	....	....	....	....	....	....	5
M.Sc. (Medicine) ....	....	....	....	....	....	....	1
Ph.D. ....	....	....	....	....	....	....	2
B.D. ....	....	....	....	....	....	....	1
Auditors ....	....	....	....	....	....	....	1
Specials ....	....	....	....	....	....	....	2
	<u>15</u>	<u>15</u>	<u>14</u>	<u>11</u>	<u>1</u>	<u>24</u>	<u>121</u>

Table XX—Degrees and Diplomas Awarded

DEGREES AWARDED				DIPLOMAS AWARDED			
	Fall 1955	Spring 1956	Total		Fall 1955	Spring 1956	Total
ARTS AND SCIENCE:							
B.A.	18	95		Diploma in Art .....	....	....
B.Sc.	18	69		Intermediate Dipoma in Art ...	....	2	
AGRICULTURE:							
B.Sc.	1	16					
COMMERCE:							
B.Com.	1	28					
DENTISTRY:							
D.D.S.	1	27					
EDUCATION:							
B.Ed.	111	65		Senior	145	86	
B.Ed. in Agriculture .....	....	....		Junior Elementary..	116	60	
B.Ed. in Industrial Arts ..	2	1		Junior High School	77	83	
ENGINEERING:							
B.Sc. in Chemical Engineering	2	27					
B.Sc. in Civil Engineering .....	....	46					
B.Sc. in Electrical Engineering	2	24					
B.Sc. in Engineer- ing Physics .....	....	....			
B.Sc. in Mining Engineering .....	....	7					
B.Sc. in Petroleum Engineering	2	20					
HOUSEHOLD ECONOMICS:							
B.Sc. in Household Economics .....	....	20					
B.H.Ec. ....	....	....			
LAW:							
LL.B.	4	30					
MEDICINE:							
M.D.	1	58					
B.Sc. ....	....	....			
NURSING:							
B.Sc. ....	....	15		Nursing	54	22	
				Teaching and Supervision .....	....	9	
				Public Health Nursing .....	....	7	
PHARMACY:							
B.Sc.	5	35					
PHYSICAL EDUCATION:							
B.Ed.	3	7					
PHYSIOTHERAPY ..							
					
GRADUATE STUDIES:							
M.A.	2	5					
M.Sc.	17	15					
M.Ed.	6	6					
Ph.D.	1	....				
B.D. COMMITTEE:							
B.D. ....	....	1					
TOTALS	<u>197</u>	<u>617</u>	<u>814</u>	TOTALS	<u>392</u>	<u>269</u>	<u>661</u>

Report of Dean A. G. McCalla of the Faculty of Agriculture

The past year has seen the first use of part of the new greenhouses and the near-completion of the remainder. The completed units and the facilities of the Agriculture Building give most members of the Faculty excellent accommodation.

A. S. Ward, Assistant Professor in the Department of Soil Science, retired and was replaced by J. A. Robertson, a graduate from the University of Manitoba. J. A. Toogood has been on sabbatical leave since September, 1955. M. N. D. Goswami joined the Department of Animal Science as a Post-doctoral Fellow supported by the National Research Council of Canada. A. G. McCalla was an official Canadian delegate to the International Congress of Biochemistry in Brussels. John Unrau attended the International Rust Conference in Mexico City. The Department of Entomology obtained the extensive Bowman collection of Alberta Lepidoptera.

Twice during the year there were opportunities to summarize the work of the Faculty and outline the philosophy underlying its program. Since an extensively revised curriculum is being introduced in the fall of 1956, it seems appropriate to review some of the factors that have been important in guiding the work of the Faculty.

Nearly 900 students have received the bachelor's degree, 215 have received the M.Sc., and five the Ph.D. Our graduates hold positions in a wide variety of fields and contribute to Canadian agriculture at all stages of production, marketing, and processing of farm products, in supplying most farm needs, and in the field of agricultural research.

Concern is often expressed because the majority of our students do not return to the farm. The actual percentage who do is about 18%. This should not be surprising, however, and it corresponds closely with the experience of other agricultural faculties across Canada. The concern expressed is so common, particularly among rural people, that it merits some attention.

For many years the size of most farms in Alberta has been increasing and the total number of farms decreasing. The total number of active workers on farms has decreased very strikingly in the last 40 years. At the same time agricultural production has greatly increased. This increase has been made possible almost entirely by the application of scientific principles to the practice of farming. Agriculture today is an applied science on the farm, just as it is in the University program. This is realized when one considers such things as the rapid progress of mechanization; the greatly increased understanding of fertility and the methods of improving the productivity of our soils; the development of the application of chemistry to agriculture as exemplified by the use of herbicides, insecticides, vitamins, antibiotics, etc.; and the enormous advances in nutrition of farm livestock, that make it possible to reduce the feeding period of a bacon hog by 25%. In order that agriculture shall use such developments effectively and economically, it is necessary that an increasing number of people should be familiar with these developments. If the two factors of this need and of the decreasing demand for farm labour are put together, what is more natural than that some of the farm young people shall come to university and then serve agriculture, not by farming, but in one of the many fields related to agriculture and on which farming depends more and more every year? Nevertheless, present registration in agriculture across

Canada is too low to provide at all adequately for graduates to fill this real need.

The Faculty is responsible for carrying on teaching, research, and some extension work in the field of agriculture. It is quite possible that the value of our Faculty to Canada will be greater through the men we teach than through the specific results of our own research. Nevertheless, many of our best men get the most important part of their training through research. The quality of teaching at university level is improved when the instructor is doing research and keeping up with research developments in his fields. More important still, an instructor who is active in research will almost certainly take part in the graduate program of the Faculty and such graduate programs do more than anything else to determine a university's quality and reputation.

The Faculty of Agriculture has a heavy research program — probably heavier than that of any other faculty in the university. This has been recognized by the Administration and is reflected in lighter teaching loads. Graduate student-training and research, however, more than equalize any concessions of this kind.

Since the degree given by the Faculty of Agriculture is the Bachelor of Science, it is assumed that the program will be built on a firm background of basic science. One of the continuing problems has been to give adequate science and at the same time adequate application of fundamentals to agriculture. There has been, and still is, considerable difference of opinion as to how the balance between fundamentals and application should be struck.

Agriculture, whether we are discussing farming or research, deals with living things — plants and animals. The study of living things is "biology" so our students must get as thorough a grounding in biological principles as is possible. While many basic principles are the same for all branches of biology, our students must take several courses in this general field. Plant and animal nutrition are concerned with chemistry, both organic and inorganic, so our students must take courses in these fields. Chemistry beyond the most elementary stage assumes an acquaintance with physics and mathematics, and students will not go far without such training.

Our students then must get sound training in both the biological and physical sciences. In four years we must try to give them this and at the same time relate these to the production of plants and animals and the management of soil. We also require a minimum of one course, and not infrequently three or four courses, in agricultural economics. Most of us agree that our students would benefit from courses in philosophy and psychology, more English, and so on, and that their lives are likely to be richer if they can get these. It is obvious that the students can't get enough of all these things. The danger that they won't get enough of anything must be avoided.

The first year in the revised curriculum will be introduced in the fall of 1956. Briefly the revision results in eliminating introductory agriculture courses from the first year and requiring the students to take the fundamentals first. The initial courses in each field of agriculture will come in either the second or third year and will be much more advanced than were the old courses. Specialization will be largely restricted to the fourth year.

The graduate program has expanded during the past few years, especially with the addition of training to the Ph.D. level. The larger departments

have all the requisites for good graduate training and it is anticipated that the program will continue to expand. The Faculty has a number of staff members who have international reputations and whose abilities should certainly be used as widely as possible.

Academic

Graduate registration totalled 30, 15 for the M.Sc., 9 for the Ph.D. and 5 special graduates, all of whom plan to complete degree programs. Total registration is still well below that needed to supply the demand for graduates. Another successful Diploma Course in Dairying was completed. Faculty members welcome the addition of three new undergraduate scholarships provided by the Alberta Dairymen's Association, the Alberta Division of the Canadian Feed Manufacturers' Association, and the Alberta Branch of the Canadian Seed Growers' Association.

Research

No attempt is made here to summarize the individual research projects in progress in the Faculty. The general program in most departments continues to grow. Generous support has been received from many sources, especially the National Research Council of Canada and the Canada Department of Agriculture. Many commercial and industrial firms have made grants and supplied materials without which the present program could not be maintained.

Extension

Faculty members took part in the usual extension activities including short courses, field days, seed fairs, radio interviews, personal interviews, and the answering of correspondence. There has been a sharp decline in time devoted to radio addresses since the Farm and Home Forum was discontinued. Feeders' Day and the Breton Field Day were both well attended.

In October, 1955, an Agricultural Soil and Feed Testing Laboratory was established with the support of the Provincial Department of Agriculture. Interest in the Laboratory has been keen, and there has been a steady flow of greenhouse soil samples and of feed samples. Farm soil samples have begun to arrive since the snow disappeared and there is every reason to expect heavy demands on the Laboratory. It is anticipated that results obtained in the Laboratory over a number of years will be useful in giving direction to some of our research.

In conclusion, it is appropriate to acknowledge the co-operation and assistance we have received from other departments in the University and from government and private interests outside the University.

Report of Dean Walter H. Johns, of the Faculty of Arts and Science

I have the honour to present a report dealing with the Faculty of Arts and Science for the session 1955-56.

1. *Registration 1955-56* (See page 34.)
2. *Recommendation for Degrees and Diplomas* (See page 53.)
3. *Progress during the Session*

(a) *Administrative duties*—During the periods when Dean Johns was carrying out his duties as Vice-President, the work of the Dean's Office was carried on by Professor D. E. Smith with the able assistance of Dr. K. B. Newbound, Assistant to the Dean.

(b) *Patterns and Honors Programs*—A new Honors program was established in Zoology, and revisions were carried out in the Patterns or Honors Programs in Economics, English, Fine Arts, Mathematics, Philosophy, Physics, and Political Science.

(c) *Numbering of courses*—A Committee under the chairmanship of Dr. E. H. Moss brought in suggestions regarding the renumbering of certain junior courses to reduce the confusion between junior and senior courses. The Committee further recommended that the normal number of junior courses in a Pattern program should be six and that the number should only rarely exceed seven. These recommendations were approved.

(d) *New Courses and Course Changes*—The following new courses were approved:—

- Chemistry 59—Instrumental Analysis
- Chemistry 113—The Phase Rule and Heterogeneous Equilibria
- Drama 40—Voice and Speech
- Economics 62—National Income Analysis
- Economics 63—Comparative Economic Systems
- French 53 (Summer Session only)—French Language and Civilization
- History 8—Canada and the United States, 1492 - 1939
- History 72—Sea Power and Diplomacy, 1470 - 1945
- Mathematics 3—Introduction to Biometrics
- Mathematics 5—Elementary Mathematics
- Mathematics 106—Theory of Estimation and Statistical Hypotheses
- Mathematics 111—Theory of Games and Statistical Decisions
- Mathematics 112—Analysis
- Mathematics 113—Mathematical Logic
- Political Science 59—Public Administration

Other courses, particularly Economics, Political Science, Mathematics, and Philosophy, were substantially altered. Economics 2 (Outline of Economics) and Physics 48 (Elementary Meteorology) were dropped from the curriculum.

(e) *Leave of Absence and Sabbatical Leave*—Dr. H. B. Mayo was given leave to carry on research independently and later resigned from the staff. Mr. William MacKenzie was granted a year's leave to work with the Royal Commission on Canada's Economic Prospects. Mr. J. B. Taylor was given leave of absence to study art at the Slade School of Art, London, England. Dr. S. G. Davis spent a year's sabbatical leave studying at King's College, University of London. Miss L. Wilson spent a year's leave doing graduate study in Psychology at the University of Minnesota. Dr. Wilfred Watson was given leave to study in France on a Fellowship awarded through the Royal Society of Canada.

(f) *Retirements, Resignations, and New Appointments*—Dr. P. S. Warren retired as Head of the Department of Geology in August, 1955, and was succeeded by Dr. R. E. Folinsbee. Mr. R. H. G. Orchard resigned as Assistant Professor of Drama to establish a Studio in Vancouver, and Dr. P. G. Rooney left the Department of Mathematics to join the staff of the University of Toronto. Mr. Eugen J. Weber left the University after one year's service to join the State University of Iowa, and Mr. G. F. Sleight resigned to join McGill University.

New appointments included Dr. D. M. Schurman in History, Dr. I. Guttman, Dr. A. Lightstone, and Mr. J. R. Pounder in Mathematics, Mr. Frank F.

Bueckert in Drama, Mr. E. N. Yates in Art, Mr. G. K. Greene in Music Extension, Mr. Harry Wohlfarth in Art Extension, Mr. J. Bilsland, Dr. Alison White, and Miss Joan Laird in English. Dr. A. B. Bhatia was appointed Assistant Professor of Physics, and Mr. A. J. B. Hough joined the staff as Lecturer in Psychology on a part-time basis.

4. Departmental Reports

Botany

The work of the Department has been greatly enhanced by improved greenhouse facilities during the year. Under the supervision of Dr. J. H. Whyte, introduced plants are being grown by Mr. Pat Seymour for studies on hardiness as well as for various other purposes. Collaborating with the Alberta Fish and Game Branch, Dr. R. G. H. Cormack has been investigating the effects of logging and burning on trout streams and game animals. Miss L. Kennedy is continuing her researches on the taxonomy of some of the higher fungi. Mr. John Hopkins of Edinburgh, sessional assistant this year, has made a splendid contribution to the teaching and research of the Department. Dr. E. H. Moss is working on a manuscript for a manual on the flora of Alberta with a view to completing it next year.

Chemistry

The Department of Chemistry found its registration of students reach the figure of 1596 in the present session with the greatest number found in the Faculties of Engineering (620) and Arts and Science (546), with other students registered in the Faculties and Schools of Pharmacy, Education, Agriculture, Household Economics, Graduate Studies, Nursing, and Dentistry. With such a heavy teaching burden, the task of obtaining sufficient demonstrators continues to prove difficult. Nine students were registered for the Master's degree in Chemistry, and there were thirty-one students in the Honors program.

Members of the Department continued to be active in administration and research. Dr. O. J. Walker has been appointed Vice-President of the Chemical Institute of Canada. Dr. R. K. Brown spent the summer of 1955 with Atomic Energy of Canada at Chalk River, while Dr. W. F. Allen carried on research at the Trail Research Laboratory of the Consolidated Mining and Smelting Company.

In research throughout the regular session, Dr. Allen studied methods for determining small amounts of cobalt. Dr. R. K. Brown did research in the reactivity of cellulose, and the preparation of indole derivative of interest as carcinogenic agents and as antitumor agents. Dr. W. E. Harris' research lay in the field of polarography in Analytical Chemistry. Dr. J. L. Morrison studied the adsorption isotherm and the heats of wetting of silk keratin by water and the adsorption of propyl alcohols from aqueous solutions by mercerized and unmercerized cottons, the specific adsorption of alkyl orange dyes by silica gels and the fundamentals of thermodynamics. Dr. Sandin continued his studies of chemotherapeutic agents for cancer and Dr. Walker his researches in fluoride analysis. Dr. W. J. Wallace studied the preparation of anhydrous metal halides, the interaction of nickel halides with donor solvents and the hydrolysis of chromic perchlorate. Dr. S. G. Davis studied physical chemistry on his leave at King's College, London.

Classics

Dr. W. G. Hardy returned from sabbatical leave in September, 1955. Dr. W. H. Johns served as Vice-President and Dean of the Faculty of Arts and Miss Margery MacKenzie continued to serve as Radio Secretary. These members of the department gave a number of radio talks and other addresses throughout the year. Dr. Johns again served as a member of the panel of judges for the Governor-General's award in academic non-fiction.

English

Professor F. M. Salter was awarded the honorary degree of Doctor of Letters by the University of Toronto in the fall of 1955 and gave the Convocation Address on the occasion. In the spring of 1956 he was made a fellow of the Royal Society of Letters. Dr. Wilfred Watson won the Governor-General's Award in Poetry for his book, *Friday's Child*. Mr. Elder received his Ph.D. from the University of Toronto.

Professor Salter taught in the Summer School at the University of Toronto while Professor Ryan taught at the Royal Military College and Professor Scargill at the University of British Columbia. Throughout the year members of the department gave public addresses on a number of occasions and Professors Kreisel and Godfrey gave talks on the CBC. Professor Salter served as a judge in the Saskatchewan Fiftieth Anniversary contest for short stories, plays and poems, the J. M. Dent Writers Contest and the short story contest of the National Federation of Canadian University students. Professor Ryan, Dr. White and Mr. Bilsland were judges in the annual poetry contest of the Canadian Authors' Association, Edmonton Branch, and Professor Kreisel was a judge in the I.O.D.E. novel writing contest for 1955.

Fine Arts

All three divisions of the Department of Fine Arts had another year of creative activity as well as carrying on their teaching program. The Department, jointly with the Women's Musical Club, sponsored four concerts and also arranged for two lectures by visiting Art Critics as well as delivering several talks themselves.

The Art Division found that the provision of a B.A. pattern and a Diploma program has increased the registration and improved the calibre of the work of the students in Edmonton while Mr. Wohlfarth served an increasing number of classes in many centres throughout the province. During the year the Division displayed two travelling exhibitions, six one-man shows, one National Gallery exhibition of facsimiles, and two displays of student work. Twenty-four talks and panel discussions on art were broadcast over CKUA.

The Drama Division saw an increase in student enrolment from 62 to 94 in the past session and had audiences totalling over 5,000 for its four major productions in the Studio Theatre. Student productions were a feature of the year's activities both in the Summer Session and the regular term, with four one-act plays produced in the summer and seven in the winter in addition to the Inter-Faculty Play competition and the French play, Dr. Knock, produced by the Department of Modern Languages. Weekly talks were given over CKUA and the staff gave a number of lectures and short talks throughout the province.

The Music Division saw a small increase in registration over last year and a distinct improvement in the quality of the students' work. All students

in the division took part in a public performance in Convocation Hall at Christmas time either in choral singing or the Symphony Orchestra. The Mixed Chorus, with one hundred and fifty members, had a busy session with two CBC broadcasts and a number of concerts in Edmonton and other centers including a Spring Tour which took them to ten towns in Alberta and British Columbia. The University Symphony presented three concerts in Edmonton and one in Red Deer, while the University Singers presented a concert in April as well as participating in the Christmas Concert. Extension work in music has been carried on throughout the year.

Geology

The Department of Geology continues to offer instruction to a large number of students in the pattern and Honors program as well as in the School of Graduate Studies and in other Faculties. Four candidates for the M.Sc. degree submitted theses this spring. Professor R. E. Folinsbee is carrying on research in radioactive dating and presents a paper on the subject to the Royal Society in June. Dr. C. R. Stelck is supervising work in foraminiferal studies of the western Canada sedimentary basin. Dr. S. J. Nelson is working in Carboniferous palaeontology and Dr. P. S. Warren, with Dr. Stelck, is studying Cretaceous stratigraphy and continuing his work on the index of fossils of western Canada. Throughout the year members of the Department worked on plans for their new quarters in the Biological wing of the Agriculture Building.

History

The Department of History has carried on an active program of lectures with five courses offered in the 1955 Summer Session, two courses in the Evening Credit Program in Edmonton, one in Red Deer, and one in Vegreville besides the regular program of one junior and eight senior courses. Members of the staff have given a number of addresses to various organizations including the United Nations Summer School in Banff. Dr. L. G. Thomas has continued his research in Missionary Records in the Canadian West with three articles published on this subject in the past year.

Mathematics

The Department's staff has risen to thirteen full-time and three part-time instructors to meet the rapidly growing need for instruction in this field.

Dr. H. Helfenstein spent the summer at the Summer Research Institute at Queen's University. Dr. Horton carried on research at the National Research Council, Ottawa, with the theoretical physics group on problems of solid state structure in metals. Professor Keeping addressed the Pacific North-west Section of the American Mathematical Society in June, 1955 and taught at the University of British Columbia Summer Session. Four members of the Department offered courses in the University of Alberta Summer Session. The weekly Mathematics Colloquium, under the direction of Dr. Moser, has been well attended by senior Honors students, graduate students, and staff.

Modern Languages

Dr. V. E. Graham returned to his duties at the Calgary Branch after a year as visiting professor at the University of Michigan, and Dr. Margaret Sullivan transferred to the Edmonton staff to assist in meeting the demands made on the French Division by increasing numbers of students. Mr. E. Reinhold was awarded the degree of Ph.D. from the University of Michigan

in the field of German Language and Literature. Mr. M. Rabotin, French Teaching Fellow, in collaboration with the Studio Theatre and the revived *Cercle Francais*, produced the three-act play *KNOCK*, which is read in French 2, playing four performances in Edmonton and one in Calgary. Two graduates of the class of 1955 went to France with awards from the French Government, and three were registered for the M.A. degree, one in German and two in French. Members of the Department were active in a variety of professional organizations as well as in research.

Philosophy and Psychology

Professor Mardiros returned to the Department after his sabbatical year devoted to research in aesthetics, conducted in Italy. Miss L. Wilson carried on her graduate study in Industrial Psychology at the University of Minnesota on a year's leave of absence. During the year Professor Mardiros attended a conference on the Philosophy of Religion at the University of Oregon, and Professor Penelhum the meeting of the Pacific Division of the American Philosophical Association at the University of California, Berkeley. Dr. L. C. Walker attended the meeting of the American Psychological Association in San Francisco and the meeting of the Midwestern Psychological Association at St. Louis. Professor D. E. Smith attended the Canadian Conference on Social Work in Edmonton. Papers were presented at all these meetings.

Dr. D. Spearman has been appointed to the Scientific Planning Committee of the Alberta Division, Canadian Mental Health Association, and Professor Smith has served as Chairman of the Personnel Committee, John Howard Society of Edmonton. A testing service was begun this year to meet the growing number of requests for testing and counselling received by the Department from individuals and from organizations such as the National Employment Service.

Physics

Registrations in this Department are beginning to show an increase, after having been at a low ebb in recent years. There were five candidates for the M.Sc. and one for the Ph.D. this year, but only one for the Bachelor's degree.

Research in Theoretical Physics has been carried out by Dr. A. B. Bhatia, Dr. H. Schiff, and Dr. G. K. Horton of the University staff and Dr. D. D. Betts, a post-doctorate fellow in the fields of Theoretical Nuclear Physics and Physics of the Solid State. Dr. D. B. Scott has been studying the use of beta-rays from radioactive sources as a therapeutic agent for certain types of lesions and the use of radioactive tracers to study the absorption of drugs in the system. Dr. G. D. Garland worked on geophysical methods of study in the underlying structure of the Rocky Mountains area and, as a member of the National Research Council's Committee on Geodesy and Geophysics helped organize the Arctic program for the International Geophysical Year. Dr. E. H. Gowan continued his work on atmospheric ozone and solar ultra-violet radiation, and Dr. K. B. Newbound carried on study of the precise measurement of wave-lengths in the spectra of mercury and argon. Dr. J. H. Harrold spent the summer of 1955 in the laboratories of the Department of Mines, Ottawa, studying the structure of Metals. Mr. M. C. Martin of the Calgary Branch completed his study of the elastic properties of metallic single crystals under the direction of Professor H. Grayson-Smith as a candidate for the

degree of Ph.D. In March the Department acted as host to the Prairie Regional Meeting of the Canadian Association of Physicists.

Political Economy

Dr. H. B. Mayo was replaced during a year's leave of absence by Mr. W. E. Grasham, and Mr. William MacKenzie was replaced by Dr. J. A. Boan for the period of his absence on the work of the Royal Commission on Canada's Economic Prospects. Registration in the Department's courses rose about 10% over the previous year with a gratifying increase in the number of Honors students in both Economics and Political Science. Dr. W. C. Wonders instructed in Geography in the Royal Military College, Kingston, and Dr. E. J. Hanson in the University of Saskatchewan in the Summer of 1955. In the field of research Mr. Boote, Mr. Davy, and Mr. Gainer continued work on their dissertations for the degree of Ph.D. Dr. Hanson is beginning a study of the Alberta Economy and is currently completing his book on local government in Alberta. Mr. G. MacDowell has nearly completed his study of labour legislation in Alberta and has completed an article on consumption. Members of the Department served on a number of University Committees and outside organizations as well as carrying a heavy load of lecturing and radio work. Dr. Wonders gave a paper at the meeting of the American Geographical Society in Montreal. Mr. Gainer appeared before the Board of Transport Commissioners on a pipeline application, and Dr. Hanson participated in utility rate, tax, and local government cases and projects and served as Alberta vice-president of the Public Administration Institute of Canada. Mr. Maurice Boote was appointed in Economics and Mr. Arleigh Laycock in Geography.

Zoology

Nearly 600 students were enrolled in Zoology courses this year, including two graduate students of whom one was completing work for the Master's degree. During 1955 Dr. R. B. Miller served as chairman of the Committee on Hydrobiology and Fish Culture of the American Fisheries Society and 1956 he was appointed to the Council of the National Research Council. Dr. Rowan and Dr. Miller lectured at the Provincial Ranger School at Kananaskis in November, 1955. Dr. J. R. Nursall gave a series of Extension lectures on "The Evolution of Man and Development of Race", and Dr. Rowan conducted a class in Art Anatomy for the Evening Extension Program in Fine Arts. Dr. Rowan also put on a one-man show of drawings, paintings, and sculpture in the Arts Building.

Dr. Nursall continued his research in the swimming mechanisms of fish and tadpoles. Dr. J. E. Moore carried on his summer ecological survey and collecting throughout the province and added many specimens of terrestrial vertebrates to the Department's collection. During the winter he worked on the food habits of Alberta amphibians and the taxonomy of Alberta pocket gophers. Dr. Miller's research has again been in fisheries at the Biological Stations at Gorge Creek and Beaver Creek. Dr. Rowan has continued his study of the ten-year cycle. All members of the Department have assisted in the planning for Edmonton's new zoo with Dr. Rowan taking the most active part in this project.

Report of Mr. B. A. Lindberg, Director of the School of Commerce

The enrolment of the School of Commerce for the 1955-56 session in comparison with the 1954-55 session is:—(see page)

Faculty Additions

The addition of an Assistant Professor of Business Administration and a Case Writer (Lecturer Rank) has been authorized. The Appointment Committee is currently engaged in the final selection of applicants obtained from: (a) circularization of 13 Universities in Canada: (b) circularization of 52 Universities in the U.S.A. and 14 Universities in Western Europe; (c) advertisements in Calgary and Edmonton newspapers. The Committee has had several meetings on the difficult selection problems arising from expansion of the School.

Case Collection

During the year 72 teaching cases were developed and written. Most of these have been used in classes. Some 50 more cases are currently in the process of being completed. The support of business and industry in making case materials available to the University is one of the most encouraging aspects of the year's operations. It is also a pleasure to report that a Case Writing Group, composed of business executives, is currently meeting on a weekly basis at the University. These executives are studying how to write business cases. This group should prove a fruitful source of cases and also, perhaps, a source of future teachers.

New Courses

During the year four new courses were offered here in Edmonton for evening students, in co-operation with the Department of Extension. These courses were:—

- Management (32)
- Supervisory Training (53)
- Personnel Administration (31)
- Financial and Accounting Controls (20)

In February, three new courses were offered in Calgary on a similar basis:—

- Management Development (31)
- Supervisory Training (38)
- Personnel Administration (17)

It is expected that Financial and Accounting Controls will be offered in Calgary next October. In this way it should be possible each year to offer similar course coverage in Calgary as in Edmonton. It is hoped that similar arrangements may be extended to other population centres in the province — provided always that local support will warrant such an extension.

School of Commerce Council Activities

The Council met six times during the year. A Committee on Future Trends and Needs for the School of Commerce (Professor J. D. Campbell, Chairman) presented a report intended to serve as a basis for faculty discussion and action during the coming year.

The Council established a RESOURCE GROUP intended to recognize individuals who have contributed a group of cases or otherwise have aided in making educational materials available for a specific course or courses.

The Council likewise approved the establishment of an ADVISORY COMMITTEE — a group of highly qualified and active leaders in administration and direction of enterprises have been invited periodically to visit the School. The purposes of such visits are:—

1. To appraise realistically the objectives of the School.
2. To scrutinize the plans to attain these objectives.
3. To meet with members of the Faculty and the Commerce Club.
4. To offer suggestions for new areas of service for the School.

Public Relations Activities.

To date the members of the Faculty of the School have delivered more than 100 speeches — mainly in and close to Edmonton, but also in Calgary, Camrose, Edson, Peace River and Rocky Mountain House.

In addition, four radio programmes were presented — one was a 28 minute presentation.

Two book reviews were printed in professional journals and an article for the Journal of Chartered Accountancy has been prepared by Professor D. Goodale.

Banff School of Advanced Management

Faculty Members of the School participated in the Banff School of Advanced Management as instructor and observer. Several of the recently written cases were used in this programme. It is hoped that through the experiences faculty and students get from case instruction in this programme that:

- a. the case method of instruction will be made available more easily to the co-operating universities in the Banff School of Advanced Management.
- b. new cases will be added by the other co-operating institutions.

The School of Commerce also co-operated with instruction in two other programmes offered through the Department of Extension at the Banff School of Fine Arts.

Department of Accounting

The work carried on by the Accounting Department for the year 1955-56 consisted of the normal teaching operations, research and extension activities. To date only the introductory course in Accounting has been offered in Calgary.

Research. The research activities of the department have been confined to a continuation of the financial statement analysis of some three hundred corporations for the year 1955. It is expected that the results of this study will be available for publication in May, 1956. The preparation of the results of this study for publication is being carried out by Professor Campbell in co-operation with Professor Gainer of the Political Economy Department.

Preliminary work has been carried out in the field of Marginal Income analysis as applied to small businesses which will be continued in the current year.

Extension Work. Professor Campbell completed his second year as Consultant to the Department of Health in the implementation of standardized accounting in the hospitals throughout Alberta. This work has been carried out in close co-operation with the Alberta Hospital Association and the Canadian Hospital Association.

An evening extension case course was started for top management in February, 1956, in the area of Financial and Accounting Controls using the

case approach. This has been favourably received. As in previous years, evening lecture courses have been provided for the Registered Industrial Accountants in Calgary and Edmonton. The demand for these courses has continued to increase with the result that the course in Accounting 1 had to be divided in both Calgary and Edmonton. The evening credit course in Accounting I in Calgary and Edmonton was combined with the course given in this subject for the Registered Industrial Accountants.

The members of the department were engaged actively in the administration of the professional act governing accountancy both with the Board of Examiners as well as the Board of Review. During the year twenty applications were received and decided upon by the Board of Review. Close liaison is maintained with the Institute of Chartered Accountants of Alberta. A substantial number of our graduating class are taking the articling route into the profession. The demand in this area substantially exceeds the supply.

In the October, 1955, final professional examinations of the Institute of Chartered Accountants of Alberta former Bachelor of Commerce graduates from the University of Alberta made a very creditable performance.

Department of Business Administration

During the year students of Business Administration 40, 55 and 56 participated in a project sponsored by the Department of Labour in Ottawa. The project, directed by the Women's Bureau, comprised a survey in six Canadian cities on: "Why Married Women Work for Pay". It was a comprehensive questionnaire involving "closed" — "scalar" — and "open end" questions relating to a variety of facts, ideas and opinions. The participating students did an excellent job under very adverse climatic conditions: The survey took place in January, 1956. It was on a "quota-sample" basis and hence covered every neighbourhood of Edmonton. The Edmonton survey was the first one to be completed and submitted. It was the only one which covered 100% of the quota sample and to quote the letter from Ottawa: "... Miss Royce has told me that the Edmonton material has been received and that it was wonderfully well done ..." — "... the records of the survey and the details of enumeration were expertly kept ..."

All in all, there seems to be a high degree of probability for the thought that the students established an enviable record of performance on this project. It is likewise our belief that the project also was a meaningful, educational experience for all the participants.

Class Opinionnaires

To ascertain more effectively the results of instruction, class opinionnaires were used to obtain information and reactions from the students. The results of these opinionnaires were presented at the last class sessions and will be used in planning for future classes. (Similar opinionnaires were also used in the classes offered in co-operation with the Department of Extension.)

New Courses

Plant Administration, a course dealing with the administration of industrial and manufacturing operations, was authorized. It will require the assembly of more than one hundred new cases in this field. Here again the support of business and industry has been most re-assuring. The director had spent more than six hours with the General Manager of a local plant, obtaining much

valuable case material. As he was leaving the General Manager said: "Is there anything else we can do for the University?" The director replied: "Thank you, Sir, you have already been of great help. I really could not ask for more." The General Manager then said: "Perhaps we could arrange to get a skeleton crew to come to work one Saturday morning if a class could come out here. That way we could demonstrate every step of the production process from the yard of raw material to the finished product on the shipping platform. On such a basis we could take each operation by itself — shut down the machinery whenever we would want to talk about any operation . . ." It is our hope to accept this most generous offer.

Report of Professor Mabel Patrick, Director of the School of Household Economics

I beg to submit the following report of the School of Household Economics for the year 1955-56:—

Changes in Courses

The course leading to the degree of Bachelor of Household Economics will not be offered after the 1956-57 session.

Two courses, Household Economics 45 and 51, are now offered for Arts and Science students.

Registration

Registration in the School this year was slightly down from the 1954-55 session. There were 78 students as compared with 81. There was a decrease of 28% in the number of students registered in courses offered by the Department of Household Economics for Education students, but in the Summer Session there was an increase of 30%. There was an increase of 28% in the number of nurses registered in this department.

Resignations and Appointments

Miss Hazel McIntyre returned after a year's leave of absence. Miss Charlotte Wade and Miss Elizabeth Empey resigned. Miss Baunita Young succeeded Miss Empey and was replaced by Miss Joyce Lister. Mrs. Alice Brewer, Mrs. Helen Bentley and Mrs. Florence Wilson were appointed sessional lecturers.

Miss Grace Duggan participated in the Second Nutrition Conference in Ottawa in June and in February attended a short course in Civil Defense in Arnprior. Members of the staff have taken part in Career Days in Edmonton High Schools, attended professional meetings, taken part in programs arranged by the Extension Department and carried on the usual extra-curricular activities for the department.

Graduate and Student Appointments.

Miss Elizabeth Ann Donald received a Master's degree from Washington State College at their 1955 Spring Convocation and has been appointed to the Research Staff of the Department of Home Economics at that Institution.

Sixteen members of the senior class have accepted hospital interne appointments, one a position as district home economist and another a position in a Home Service Department. Three will be occupied in homemaking.

Report of Dean W. Scott Hamilton of the Faculty of Dentistry

The total enrolment in the faculty for the 1955-56 session was 115, which included five special students who had recently emigrated from Europe. The applications from European students appear to be on the decline, since only three presented themselves this year. While these students have presented difficulties in an attempt to accommodate them, we feel that it was worth while in order that they might become properly settled in this country and increase professional personnel, which is so badly needed.

During the present session Dr. H. R. Maclean spent six months in special study at the University of California.

The field of Public Dental Health has received much prominence in this province and many of our faculty have participated in the various programmes, including lectures to such groups as home and school organizations, broadcasts and television presentations.

Five from the faculty attended the meeting, in St. Louis, of the American Association of Dental Schools. Members of the faculty have appeared on the programmes of societies and conventions. The Dean attended the meeting of the Council on Dental Education in Toronto.

Requests continue to pour in for dentists to locate in various parts of the country where the public have no such service available.

Report of Dean H. T. Coutts of the Faculty of Education

I have the honour to present this report dealing with the Faculty of Education for 1955-56.

Registration

Student registration rose slightly in both Edmonton and Calgary with a continuation of the trend toward greater increases in the degree programs.

Degrees and Diplomas (see pages 36 and 53.)

Developments during the year

(a) Visiting Lecturers

Dame Olive Wheeler of Cardiff, Wales, Professor M. P. Toombs of the College of Education, University of Saskatchewan, and Professor H. L. Stein of the Faculty of Education, University of Manitoba, were visiting lecturers during the year.

(b) Curriculum

The B.Ed. program was under review by staff during the year. The only changes made were the discontinuance of the B.Ed. in Agriculture program and the addition of two new courses: Education 500 (Graduate Seminar) and Education 514 (Educational Sociology).

(c) Leave of Absence

Associate Professors Buxton, Lampard and Sparby were on leave of absence during 1955-56, Mr. Buxton to continue his graduate studies at Stanford University, Miss Lampard to continue her graduate studies at the University of Chicago, and Mr. Sparby to assist in administering the Canadian Education Association-Kellogg Program in Educational Leadership.

(d) *Staff Changes*

On September 1, 1955, Professor H. T. Coutts succeeded Dr. H. E. Smith as Dean of the Faculty of Education. Dr. H. S. Baker was appointed Professor and Chairman of the Division of Secondary Education. Assistant Professor Barnett returned after two years' study in the University of Southern California. Dr. R. S. MacArthur and Mr. W. H. Worth were appointed to the staff in Edmonton, Dr. L. Ford, Miss E. King, and Mr. S. A. Linstedt to the staff in Calgary. Mr. Hampson was transferred to Edmonton. Mr. J. A. Forbes returned from a year's leave of absence during which he attended the London Institute of Education. Mr. Frank Baer continued as a sessional instructor in Calgary. Mr. Norman Yates was transferred to the Department of Fine Arts. Because of her increasing administrative duties, Associate Professor M. S. Simpson was relieved of her teaching responsibilities in the Faculty. Mrs. C. Higgin served in the Calgary Branch.

Stanford University conferred the Ph.D. degree on Associate Professor B. E. Walker in June, 1955.

(e) *Publications*

While publications are listed elsewhere, special mention is made of *Canada in the Western World* (Gage and Co., Toronto, 1955), by Dr. T. G. Finn and Dr. W. D. McDougall, and of *Youth and Tomorrow* (McLelland and Stewart, Toronto, 1956), by Dr. S. C. T. Clarke and Dr. J. G. Woodsworth.

(f) *Representation at Professional Conferences*

The Faculty was represented at the Western Canada Regional Conference on Teacher Education (Winnipeg), the Conference of Deans and Professors of Educational Administration (Toronto), the National Conference of Canadian Universities (Toronto), the Canadian Education Association Conference (Quebec), and the Laval Short Course in Educational Leadership (Quebec).

(g) *Graduate Program*

The Faculty serves a large number of graduate students. During the year negotiations have proceeded with the W. K. Kellogg Foundation for a grant to assist in promoting an extended graduate program in educational administration.

(h) *Research*

Research activities in the Faculty have been extended throughout the year. Faculty sponsored research activities led to the publication of several studies. *The Alberta Journal of Educational Research* completed its first successful year of publication. A submission was made to the Carnegie Corporation for aid in developing research activities still further.

The divisional reports below show more completely the extent and variety of activities in which the staff of the Faculty of Education are involved. A warm word of thanks is due to all those who have made this a successful year for the Faculty: the teaching staff, the demonstration staff, the clerical staff, and the custodial staff.

Division of Educational Psychology (Dr. G. M. Dunlop Chairman)

The staff of the division was composed of Drs. J. W. Gilles, S. C. T. Clarke, R. S. MacArthur and J. G. Woodsworth, Mr. R. J. C. Harper and Dr. G. M. Dunlop, Chairman. Dr. MacArthur was the only new member of the Division,

replacing Mr. W. Pilkington, who transferred to the Division of Secondary Education.

The Division offered the following courses: Ed. 176, Ed. 308, Ed. 310, Ed. 475, Ed. 476, Ed. 570, and Ed. 574. Ed. 310 was offered in the evening program. Ed. 570 was offered in the extramural as well as the intramural program.

Members of the division carried heavy responsibilities within the university. Dr. Gilles continued as Director of the Summer Session and assumed the new position of Director of the Evening Division. Dr. Clarke served as assistant Director of the Alberta Committee on Educational Research. Dr. MacArthur and Dr. Clarke continue as consultants in the C.E.A.-Kellogg Short Course in Administration and Supervision. Dr. Dunlop acted as Director of the Alberta Advisory Committee on Educational Research. Members of the division served on the following university committees: Council of the School of Graduate Studies, the University Research Committee, Faculty Research Committee, Student Advisory Services, Board of Nurses Examiners, Salary Committee of the A.T.S.U.A., Library Committee, Radio Committee, Revisions Committee, Board of Teacher Education and Certification, Committee of the Evening Division, Alberta Advisory Committee on Educational Research.

In addition, staff members played major roles in national and provincial activities. Dr. Clarke served as Chairman of the Board of Directors of the Alberta Division of the Canadian Mental Health Association, and as a director of the Canadian Mental Health Association. He has also served for years on the Department of Education committees on Teacher Recruitment and Promotion Policies. Dr. MacArthur is a member of the Alberta C.E.A.-Kellogg Provincial Advisory Committee and continues his role as the official responsible for evaluation of the C.E.A.-Kellogg Five Year Project. Dr. Dunlop served on the Canadian Teachers' Federation Research Committee and participated in the work of the Management Committee of the C.E.A.-Kellogg Project. He also served as special consultant on the National Advisory Committee on Educational Research.

The members of the division also devoted time to the supervision of practice teaching. Each member had responsibility for twelve student teachers. In extension work the division was active at conventions and institutes, and delivered many addresses. Dr. MacArthur gave eleven papers. Mr. Harper addressed eighteen meetings and delivered a series of lectures to nurses of the Aberhart Sanatorium. Dr. Clarke's record is impressive. He participated in three Careers' Night programs, spoke to eleven Home and School meetings, sat on six panels, delivered four radio addresses, and spoke at thirteen additional meetings on educational and psychological problems. Dr. Gilles spoke at the Calgary City Teachers' Convention and at the Western Regional Conference of Teachers and Educators. The chairman spoke at the C.E.A. Conference in Quebec, and at the C.E.A.-Kellogg Short Course, and at a number of meetings and conventions.

Mr. Harper served as Director of the Education Clinic. During the year 325 intelligence tests were administered, and twenty-five cases were accepted for diagnosis and remedial treatment. In harmony with policy, only a limited number of cases are accepted, since the clinic serves primarily as an adjunct to teaching, rather than a service to the community.

The division was also active in writing on professional subjects. Two members, Dr. S. C. T. Clarke and Dr. J. G. Woodsworth, were co-authors of a

Grade Nine text on personal development entitled "Youth and Tomorrow." Articles were contributed by the chairman and Dr. Clarke to the *Alberta Journal of Educational Research*, the *A.T.A. Magazine* and the *Alberta School Trustees' Association Journal*. The chairman also contributed articles to *Canadian Education* and the *Manitoba Teacher*.

Supervision of graduate studies continues to be a major activity. Seven candidates completed requirements for the master's degree during the year under the supervision of members of the division.

Research has increased greatly since the organization of the Alberta Advisory Committee on Educational Research. Every member of the division is actively engaged in major research projects. A large measure of responsibility fell on Dr. Clarke and the Chairman for the conduct of research and the direction of the research organization. Dr. Harold S. Baker, Chairman of the Division of Secondary Education, deserves credit for an excellent job as editor of the Journal. As the report was being written the President had been informed that the Carnegie Corporation of New York had granted \$50,000 to be applied to the encouragement of educational research in the province. This may be regarded as a fitting recognition of our work in organizing and conducting research in this Faculty.

The division has accomplished much in the past year. It has carried heavy administrative, lecturing, extension and research responsibilities, and played a large part in provincial and national movements in education. The record of achievement is impressive when one considers that the work was done by four staff members and Dr. Gilles, whose administrative duties consume over half his time. It is not an overstatement to say that this division has provided educational leadership in a number of fields, and especially in educational and psychological research.

Division of Elementary Education (Dr. W. D. McDougall, Chairman)

In addition to their instructional and other responsibilities related to the undergraduate and graduate students, the members of the Division of Elementary Education endeavour to comply with requests for their services from the Department of Education, superintendents, institute and convention activities. The following members of the Division have been assisting the Curriculum Branch of the Department of Education in the organization and revision of the programs of study: Miss Caldwell, Mr. Hampson, Mr. Hodgson, Dr. MacGregor, Mr. Worth. The superintendents and teachers of the province make frequent requests for assistance at conventions and institutes. The following staff members have been especially occupied by such requests: Miss Caldwell, Mr. Card, Mr. Hampson, Mr. Hodgson, Dr. MacGregor, Mr. Worth. These extra duties, though cheerfully assumed, are making serious inroads into the instructional time and energy of staff members.

During the year Mr. Hodgson directed a special study to determine the effectiveness of instruction in elementary arithmetic in the schools of the province. Mr. Worth is currently engaged with Dr. Clarke in the study of promotion policies in the schools of the province. Other members of the Division assisted in the development of theses related to other aspects of elementary education. As the number of teachers who have degrees in elementary education increases, the demand for suitable post-graduate courses also increases, and the demand upon staff for advice and direction in the selection, development and evaluation of theses becomes increasingly heavy.

Some members of the division have been involved in major publications. Miss Lampard, Dr. Smith and Mr. McDougall contributed chapters to "Canadian Education Today" by Joseph Katz, and Dr. McDougall and Dr. Finn collaborated on the production of "Canada and the Western World".

Mr. Hodgson is vice-president and president elect of the Alberta Federation of Home and School Associations of the province. In connection with this, he attended the national conference in New Brunswick and accompanied Dr. Laycock on a brief tour of the North West Territories.

The introduction of a more selective matriculation requirement assisted materially in the up-grading of the Junior E program. When the matriculation requirement is made uniform with that for other University groups, the morale of this very fine group of young people will be very much improved.

Division of Secondary Education (Dr. H. S. Baker, Chairman)

With the expansion of the University and of the Faculty, the responsibilities of the Division of Secondary Education and Administration continue to grow. These responsibilities include teaching and the supervision of student teaching, committee work, participation in teachers' conventions and institutes, educational research, graduate studies, liaison and extension work with lay groups interested in education.

The Division offers basic courses in curriculum and education method, administration and educational philosophy. During 1955-56 Dr. Walker offered an evening course in philosophy; Dr. Walker and Mr. Pilkington offered graduate courses in the late afternoon, primarily as a service to city teachers. All members of the Division participated in the supervision of the student teaching program under the direction of Mrs. Rust.

Dr. Baker served on the Department's Senior High School Curriculum Committee, and is chairman of the Subcommittee on High School English. Dr. Walker is secretary of the Subcommittee on High School French. Mr. Melsness served on the Subcommittee on High School Science, Mr. Pilkington on the Leisure Reading and Recruitment committees. In addition, members served on various Faculty and University committees, and on those of the Alberta Teachers' Association. Mr. Melsness served on the executive of the A.T.S.U.A. and is president elect.

All members have participated in teachers' conventions either as guest speakers or as representatives of the Faculty. They have spoken also at Home and School Associations and career nights, and have contributed three panel discussions to the Faculty of Education radio series.

With more than one hundred active graduate students in secondary education and administration, graduate studies and research are becoming increasingly important in the work of the Division. Dr. Walker is Chairman of the Graduate Studies Seminar Committee. All members serve on thesis committees. All members, too, are involved in the conduct and publication of research. Dr. Baker served as editor of *The Alberta Journal of Educational Research*. Dr. Baker (in collaboration with Dr. Coutts), Mr. Pilkington (in collaboration with Dr. Clarke), and Dr. Walker have published articles in the Journal.

Mr. Melsness is continuing adviser to the C.E.A.-Kellogg Short Course for Superintendents. Mr. Pilkington is to serve in a similar capacity. Dr. Baker and Dr. Walker have so served.

During 1955-56 Dr. H. E. Smith, formerly Dean of the Faculty, has been with the Division in place of Mr. H. T. Sparby, on leave of absence with the Canadian Education Association.

Report of Dean R. M. Hardy of the Faculty of Engineering

The somewhat abnormal rate of increase in registration in the Faculty which has been evident for the past three sessions has continued. However the number in the first year class was practically identical with that of the previous year which may indicate that the size of the student body may become more stable during the next two to three years.

The graduating class this year at 145 students represents an increase of about 50% over the previous session. However the demand for engineering graduates from industry and the public services has continued to be substantial and the competition amongst the larger employers for young graduates has been greater this year than at any time in the past. The high demand for engineering graduates has applied to all fields of specialization.

The faculty is still concerned with the adequacy of the preparation of students in the high schools of the Province for work in the first year of engineering. The new high school curriculum does not appear to have improved the situation in regard to the difficulties of transition from the methods of the high school to those in the University. While the problem has been under study during the past three years agreement has not been reached as to the basic nature of the problem. However one significant point appears to be that the major difficulties arise with students entering the physical science pattern in the Faculty of Arts and the Faculty of Engineering. This whole question is becoming one of major public interest and concern because of the vastly increasing requirements for university graduates in these fields as compared to past years.

Despite the difficulty of attracting students to graduate programs in competition with the opportunities for young graduates in industry, the number of graduate students in the Faculty showed a slight increase. However the number of young engineers of superior ability who are proceeding to graduate studies is quite inadequate to satisfy the national needs.

All departments in the Faculty have been active in research work and instruction at the graduate level. Good progress has been made on the continuing program in the department of mining and metallurgy concerned with fundamental research in Driessen cone concentration and its application to the refining of uranium ores. Funds for this project are provided by the Atomic Energy Control Board and are administered by Eldorado Mining and Refining Limited.

In the department of electrical engineering research work has been undertaken concerned with characteristics of network analyzers to meet the modern requirements of power companies as a graduate student project. Work has also been undertaken on the characteristics of motors used for pumping oil at well heads and on the problem of radio interference set up by high voltage equipment which exists in several localities in the Province.

A detailed investigation was also undertaken in the department of electrical engineering in cooperation with the Calgary Power Company and the Montreal Engineering Company of the technical requirements of a network analyzer to suit the needs of the Prairie Provinces. As a result of these the Calgary

Power Company have donated a network analyzer to the University. This equipment is valued at approximately \$100,000, and will constitute a most substantial addition to the facilities in the department. Its installation is expected to be completed during 1957.

In the department of chemical and petroleum engineering research work continued on six separate and distinct pieces of research by full-time members of the department staff. Three other research projects were carried out in co-operation with the Alberta Research Council. The subjects of these are:—

Physical and Electrical Properties of Pembina Oil — Emulsion Drilling Fluids.

Vaporization Loss from Crude Oil.

P.V.T. Behaviour of Methane-Hydrogen Sulphide System.

Low Temperature Carbonization of Coal in a Fluidized Bed.

Rheology of Pembina Crude Oil.

Two Phase Vertical Flow.

Pyrolysis of Butane at High Temperature.

Partial Oxidation of n-Butane.

and, Molecular Sieve Adsorption of Methane and Nitrogen.

Financial support for certain of these projects was provided by Imperial Oil Limited, Pembina Pipeline Co. Limited and the Research Council of Alberta.

Three Master of Science theses were satisfactorily completed under the following titles in the department of chemical and petroleum engineering:

Low Temperature Carbonization of Coal in a Fluidized Bed.

Pyrolysis of Butane at High Temperatures.

and, Physical and Electrical Characteristics of Pembina Oil — Emulsion Drilling Fluids.

In the department of civil engineering research work was conducted concerning the characteristics of light weight aggregates for concrete; studies of laminated timber girders; river hydraulic and hydraulic structures problems; the effect of frost action on the strength characteristics of soils; aerial photographic interpretation to indicate subsoil characteristics; chemical treatments of soil to prevent frost heaving on highways, runways and airports; studies in the engineering properties of muskeg; admixtures for asphalt paving mixtures; the bending of vertical thin shells and vibrations in soils induced by reciprocating equipment.

Financial support for certain of these projects was provided from the National Research Council, the Research Council of Alberta, the Prairie Road Builders Section of the Canadian Construction Association, the Franki Compressed Pile Company of Canada and the Canadian Institute of Timber Construction.

Six Master of Science theses were satisfactorily completed under the following titles in the department of civil engineering:

The Effect of Freezing and Thawing on the Engineering Properties of Clays and Shales.

Development of Line Load Apparatus and Exploratory Studies in the Behaviour of Plywood Box Beams.

An Air Photo Analysis of Engineering Soils.

An Investigation of the Engineering Properties of Muskeg.

A Preliminary Investigation of the Effects of Polythene on Asphalt Paving Mixtures.

Stress-Strain Relationships of Light Weight Concrete.

One text book entitled "The Physical Properties of Solid Materials", was published by members of the department. A bulletin entitled "Farm Water Systems and Sewerage" prepared by members of the department was published under the auspices of the Prairie Rural Housing Committee sponsored by the Governments of the Provinces of Manitoba, Saskatchewan and Alberta and by Central Mortgage and Housing Corporation. This is a companion booklet to one prepared and published several years ago under the title "Treatment of Farm Water Supplies".

Various members of the academic staff of the Faculty have been active in providing professional engineering services and specialized technical assistance to both public authorities and industry.

Extension activities of members of the staff continued in the form of correspondence, lectures and radio talks.

Report of Dean W. F. Bowker of the Faculty of Law

The number of students has changed but little for several years. Demand for articulated students still exceeds supply. It is true that those who speak of the shortage of professional men never mention law, but there is a shortage in this province. The urgent needs of the large city firm are being met, but only because a number of graduates of other law schools come to Alberta.

There is still a demand for lawyers in smaller centres, in government, and the oil industry. The problem is of course to meet this demand without a lowering of standards. A mere increase in numbers is not a solution. It would be gratifying to have twice as many promising candidates as we now have. Perhaps methods of recruiting will have to be found.

Nearly all graduates enter into articles and then are admitted to the bar. In some law schools it is assumed that a substantial number of graduates are not interested in the practice of law; not so here. Indeed this faculty conceives its function to be that of preparing students for admission to practice.

Three of our former students — all Rhodes Scholars — are at Oxford University. At present there are no other graduates studying at other Universities.

During the past year Professor Smith has been at Stanford University on sabbatical leave, continuing his research in Constitutional Law. In his absence the faculty has received as in the past the unstinting help of Edmonton practitioners who assume the teaching of a number of courses.

The problem of building up the number of full-time teachers is difficult. For a number of years we have had four and it would be desirable to have more, yet good teachers are very scarce.

The faculty has been fortunate in having added to the staff this year Assistant Professor D. Sherbaniuk, an Alberta graduate. He replaced Assistant Professor A. B. Weston who resigned. Associate Professor G. W. Reed is to leave shortly to take a non-teaching position. Professor Reed's departure is a great loss. His scholarship, teaching ability and administrative capacity are of the highest order. During his seven years here, he has made a fine contribution to the faculty and to the University. His leaving accentuates the difficult problem of finding new staff members.

The faculty is anxious to complete the revision of curriculum which has been

under study for years. This is becoming urgent but is hard to implement without a larger full-time staff.

Generally speaking the affairs of the school went smoothly. The new library is an excellent place for students to work, and our gradually increasing law library is accessible to the students, who make good use of it. As usual the students took an active part in students' union affairs, while keeping up their work. The usual good morale prevailed.

A noteworthy event was the publication by the students of the first issue of the Alberta Law Review, which in a sense is a revival of the old Alberta Law Quarterly. Members of the profession have spoken favourably of the first issue. The journal will give the students a good opportunity to gain experience in legal writing, and to contribute articles of interest and use to the profession.

As in most years, the faculty arranged for a number of talks on subjects of interest to the students. Three solicitors for oil companies — Mr. D. E. Lewis, Mr. W. Henricks and Mr. C. D. Williams came up from Calgary at their own expense and spoke to the students on different aspects of oil and gas law, and the Honourable Mr. Justice Primrose gave a most helpful and stimulating talk on the practice of law.

The faculty's relations with the Law Society have continued to be the best. In the last few years and particularly this year the Law Society has asked the faculty to cooperate in their effort to develop a programme of continuing legal education. At its meeting the Law Society approved in principle a scheme to establish a legal research centre. The Law Society looks to this faculty to assist in such a programme, and rightly so, but there is a practical difficulty in that the staff has a fairly heavy teaching load and all are engaged in work leading to graduate degrees. Other worthwhile activities in which the staff is called on to take part are those of the Canadian Bar Association and the Association of Canadian Law Teachers, and one member is on the Conference of Commissioners of Uniformity of Legislation in Canada. In addition all are frequently asked to address meetings of one kind or another. All these extra curricular activities are important, and are valuable to the staff, but a point can be reached where these will have to be curtailed if teaching and the work withing the faculty are not to suffer.

Report of Dean J. W. Scott of the Faculty of Medicine

The Faculty of Medicine admitted only 58 students to the first year class in 1955. The decrease in enrolment resulted from the dearth of candidates who met the basic requirements for admission to medicine. It was found necessary to accept several students with averages below 65 per cent to make up a class of 58 students. As a result of this lowering of admission standards, we may expect a number of failures in the final examinations in first year.

Enrolment in the Faculty of Medicine for the 1955-56 session was as follows:

	<i>Men</i>	<i>Women</i>	<i>Total</i>
1st Year	55	3	58
2nd Year	48	1	49
3rd Year	46	4	50
4th Year	57	2	59
	<hr/>	<hr/>	<hr/>
	206	10	216

This is the first year that no students from the University of Saskatchewan have been admitted with advanced standing. Ordinarily we have admitted four to eight Saskatchewan students to our third year class.

During the Spring and Fall Convocations 55 students received the degree of Doctor of Medicine.

In the autumn of 1956 the first trainees of the School of Physiotherapy will receive their diplomas. This marks a further step in the increasing role of the University in bringing adequate care to the people of Western Canada.

One new department was created this year with the separation of the sub-department of Anaesthesia from the Department of Medicine and the setting up of a separate department of Anaesthesia under Assistant Clinical Professor E. A. Gain.

A few staff changes have taken place. Professor J. W. Pearce succeeded Professor H. V. Rice as head of the Department of Physiology. Dr. L. B. Smillie succeeded Dr. A. G. Stewart as Assistant Professor of Biochemistry.

Professor M. R. Bow of the Department of Preventive Medicine will retire this year after many years of outstanding service in this department. He will be succeeded by Dr. C. R. Amies.

The Associate Professorship of Medical Research, endowed by the Muttart Foundation, as mentioned in last year's report, has been filled by Dr. R. S. Fraser, who was a Markle Scholar in our Department of Medicine up to that time. Mr. Fraser continues as Markle Scholar in his new position.

The proposed extension of the Provincial Laboratory will give increased facilities for teaching and research in the Departments of Pathology, Bacteriology, Virology and Preventive Medicine.

The high standard of teaching in the basic science and clinical departments at both undergraduate and graduate level has been maintained. Two new graduate courses have been introduced in the Department of Physiology. The affiliated teaching hospitals of the Faculty of Medicine have continued to co-operate in making available their facilities for clinical teaching.

The number of graduate students in all departments has increased. In the basic science departments there are at present 8 graduate students registered in the School of Graduate Studies, most of whom are actively engaged in research projects and are proceeding to M.Sc. or Ph.D degrees. The clinical graduate training program continues to attract a number of students who are proceeding to Royal College of Physicians and Surgeons examination for Certification and Fellowship in one of the medical specialties. There are now 19 students enrolled in this program. The plan calls for active co-operation between the basic science and clinical departments.

The Committee on Continuing Medical Studies has further expanded its program for the training of practising doctors in our Province in the latest diagnostic and therapeutic procedures. In collaboration with the Alberta Division of the Canadian Medical Association, 15 different centres in Alberta were visited by travelling teams of members of our Faculty. Lectures, clinics, or ward rounds were held in Vegreville, Vermilion, Grande Prairie, Peace River, Red Deer, Lacombe, Camrose, Ponoka, Lamont, St. Paul, Westlock, Barrhead, Lethbridge, Drumheller, and Medicine Hat. This extension or circuit type of postgraduate teaching is a recognized function of a modern

medical school and is appreciated by the local Medical Societies which were visited.

This year the Twenty-fifth Annual Refresher Course was combined with a sectional meeting of the American College of Surgeons. Over two hundred doctors attended the meeting. There was inaugurated at this meeting the W. Fulton Gillespie Memorial Lectureship in honor of the late Dr. Gillespie, Professor of Surgery and founder of the Annual Refresher Course. The inaugural lecture was given by Dr. J. T. Priestley, Professor of Surgery of the Mayo Foundation.

The staff of the Faculty of Medicine continues to carry an increasing load of teaching for other Schools and Faculties in the University. It is of interest that students of nine other faculties and schools receive instruction by members of our faculty, as do graduate and undergraduate nurses. Approximately 29 such courses are given each year.

In addition to teaching commitments our academic staff has carried on a successful program of research. It will be noted from the list of publications submitted that research activity covers a very wide field of interest at both fundamental and clinical levels. The facilities of the J. S. McEachern Cancer Research Laboratory and the continued support of Cancer Research at both the basic science and clinical level by the Alberta Division of the Canadian Cancer Society have been of the greatest value. In addition, we have received generous supporting grants for medical research from the National Research Council, the Defence Research Board, the National Cancer Institute, the Medical Research Fund set up by the University, and private donations.

As in former years many of our faculty members have made significant contributions to the medical life of Canada as officers of national medical organizations such as the Canadian Medical Association, the Royal College of Physicians and Surgeons of Canada, the National Cancer Institute, the National Research Council, the Defence Research Board, the Association of Canadian Medical Colleges, the Canadian Society for Clinical Research, the American College of Physicians, and the American College of Surgeons.

Many of our teaching staff have travelled to scientific meetings in Canada, the United States, Great Britain, and Continental Europe. They have presented scientific papers, acted as chairmen, and taken an active part in discussion of papers.

It is gratifying to note the rate of growth and development in the Faculty of Medicine in the past 10 years and the expansion of teaching and research activities.

Distinguished visitors who visited the Campus in the past year, and spoke to students or staff or both, include:

Dr. Ian McMillan of St. Thomas' Hospital, London,
and the Laboratory of Cardiovascular Hemodynamics, Bethesda, Maryland.

Dr. Sheila Sherlock of the University of London
and the London Postgraduate Hospital.

Dr. L. V. Ackerman, Professor of Pathology, Washington University, St. Louis.

Dr. Robert Cruikshank, Professor of Bacteriology,
Wright-Fleming Institute of Microbiology,
London.

Report of Professor H. E. M. Penhale, Director of the School of Nursing

I have the honour to present the report of the School of Nursing for the session 1955-56.

Inherent in the philosophy upon which the programs in the School of Nursing are based is the belief that the nurses' preparation must reflect the needs of the community in which she is to serve. Since the health and sickness needs of people vary, the nursing curricula must be evaluated periodically and be revised to keep pace with the varying needs of society.

During the past year a number of changes were made in the curricula. Students in first-year nursing were given assistance in reading and study techniques. A course in the professional responsibilities and privileges of the modern nurse was instituted in order to help the young student become more aware of the relationship between her general education and the special preparation needed for the development of professional competence in nursing.

Courses in teaching, supervision and public health were made available to students in the final years of the degree programs. The graduates of these programs are prepared for beginning positions in public health nursing, as well as for practice in hospital.

Arrangements were made for field experience in psychiatric nursing for all degree students. This experience aims to increase the students' understanding of personality disorders. It also aims to develop an appreciation of the role of the nurse in the emotional aspect of total patient care.

An affiliation in rural hospitals was included in the degree program. It provides educational experiences which assist in the integration of social and health aspects of the curriculum through nursing experiences in rural hospitals, through seeing health programs in the rural community and through participation in community activities.

Field experience for students majoring in Teaching-Supervision was increased from four to six weeks. In arranging the experience, the individuals' background of preparation and interests were considered.

Students registered in the program leading to the Certification in Advanced Practical Obstetrics were given courses in the principles of teaching and supervision. Practice in teaching was included as part of the program.

The members of the staff continue in their efforts to meet the needs of nurses and nursing. An evening course in Ward Management was offered at the Royal Alexandra Hospital during the fall term. The course was repeated at the Aberhart Memorial Sanatorium during the spring term. An Institute in Team Nursing was presented in Calgary and repeated in Edmonton. A Workshop in Communications was offered in Calgary. The staff has participated in nurse recruitment programs in Edmonton and in the surrounding area. It was a privilege to participate again in the program for Farm Young People.

The numbers registering in the various programs continues to increase. The total registration is 166 as compared with 144 of one year ago. The greatest increase has been in first-year degree nursing at the Calgary Branch and in the post basic degree program.

Report of Dr. J. R. Fowler, Director of the School of Physiotherapy

The second year of the new two-year Diploma Course in Physiotherapy was successfully inaugurated in the fall of 1955. The School was most fortunate

in having adequate space as result of renovations to the former Canteen Building. This landmark now bears signs reading "School of Physiotherapy", and the School has become a definite physical entity on the campus.

In the enrolment for the 1955-56 session the following information is presented:—(See page 37.)

The 1954-55 class completed successful 1st year summer internships in accredited hospitals in Calgary and Edmonton. In view of the fact that they were in competition with student internes of two years' experience from Eastern Schools, the supervisor's reports were indeed gratifying. This year the students in first year once again are being placed in Calgary and Edmonton. The second year students are completing their internships in hospitals throughout Western Canada.

The School was most fortunate in securing the services of a full time instructor, Miss M. Gordon, who qualified in England, and spent one year on the teaching staff of the University of Toronto before joining the University of Alberta.

New courses were inaugurated in the second year, and were capably directed by the teaching staff of the School, the University Hospital Medical Staff and supporting lecturers in Vocational Services. The second year class also took part in a 12 hours a week practical hospital internship during the winter session under the directorship of the Physical Medicine Department at the University Hospital.

Since the previous year's annual report the graduating students from the University of Alberta have been recognized by the Dominion Professional Body, and on registration are members of the Canadian Physiotherapy Association.

As the first graduating class nears Convocation every student has been placed in the four Western provinces. Despite these placements requests are continually being received from hospitals all over Western Canada for University of Alberta graduates. Needless to say, with this constant demand for such professional therapists the School will be fulfilling a public need for years to come.

Report of Dr. M. J. Huston, Dean of the Faculty of Pharmacy

Academic

A significant milestone in the development of pharmacy on the campus was reached in 1955 with the approval of faculty status by the Board of Governors in June. Pharmacy was established in Alberta in 1914 as a department in the Faculty of Medicine. In 1917 it was elevated to a School in the Faculty of Arts and Science. In 1939 the School was placed under the Faculty of Medicine and in 1950 it became autonomous.

Enrolment continued high this session with a total of 125 students. (See pages 37 and 38.)

Dr. J. R. Murray completed the requirements for the Ph.D. degree at Ohio State University.

For the first time a graduate course was offered in pharmacy. This was Pharmacy 101, a course in radioactive tracer techniques presented by Dr. Riedel.

A series of four lectures on pharmacy was presented by staff members to

second year medical students. Dr. Riedel gave a number of lectures to the Public Health Nurses on laws pertaining to the use of drugs and public health aspects of the atomic age. Dr. Riedel presented lectures to the second year medical students on the medical use of radioactive isotopes and drugs used in the treatment of neoplastic disease.

Two new awards were made available in pharmacy:—The Canadian Foundation for Advancement of Pharmacy Bursary of the value of \$250.00 as a matriculation award; and the Burroughs Wellcome Bursary of the value of \$250.00 for an outstanding student entering the second or third year of the pharmacy course.

Ten members of the instructional staff, full and part-time, visited the College of Pharmacy, University of Saskatchewan for an inter-departmental conference in February. This was a return visit since the staff of the Saskatchewan College visited Alberta the previous year. Two days were spent in tours of the facilities and in discussions of teaching and research problems.

Extension

The Faculty of Pharmacy conducted a refresher course in conjunction with the annual convention of the Alberta Pharmaceutical Association in Calgary.

During the year four bulletins on recent advances in pharmacy were prepared and distributed to all practising pharmacists in the province.

Refresher course lectures were presented by the faculty members at nine centres throughout the province during the Fall. Expenses of the tour were paid by the Alberta Pharmaceutical Association and the Canadian Foundation for the Advancement of Pharmacy. Meetings were held in Edmonton, Vermilion, Red Deer, Stettler, Peace River, Camrose, Calgary, Lethbridge and Medicine Hat. Over 300 pharmacists attended.

Dr. Murray served as president of the Parkallen Home and School Association and acted as a leader for a Cub group. He also acted as Editor of the Bulletin of the Canadian Conference of Pharmaceutical Faculties. Mr. Anderson was active during the year in the Y's Mens Club and Dr. Huston was elected president of the Edmonton Kiwanis Club. Dr. Riedel again served as an abstractor for the Physiology, Biochemistry and Pharmacology section of *Excerpta Medica* and continued his position as Chief Training Officer for the University Reserve Squadron. Dr. Huston was nominated to the Editorial Advisory Board of the Canadian Pharmaceutical Journal.

Due to the activities of Dr. Murray in pointing out the hazards of careless handling of toxic materials by the public an educational programme was undertaken by the pharmacists of the province and over a hundred-thousand counterdose charts were distributed.

Staff members presented papers to professional societies, service clubs, and similar groups as follows:—Dr. Murray 13; Dr. Riedel 6; Professor Anderson 2; and Dr. Huston 26.

Research

An Alberta student, Mr. P. W. Miskey won the E. L. Woods Memorial Prize for undergraduate research in pharmacy in competition with other students throughout Canada.

Two students undertook work during the year towards M.Sc. degrees with research problems in the field of pharmacology.

Dr. Murray continued his research begun at Ohio State University, on the effect of certain drugs on experimental hypertension in animals.

Mr. Anderson continued his investigations in the field of pharmaceuticals and product formulations.

Dr. Riedel extended his research in the use of isotopes in experimental biochemistry. In addition to studies on phosphorus metabolism related to tumour growth (supported by a National Cancer Institute grant) studies were done on the carcinogenic and anticarcinogenic activity of certain chemicals related to indole synthesized by Dr. R. K. Brown of Chemistry. This work was also supported by a National Cancer Institute grant.

Dr. Huston applied a modification of the Warburg technique to measurements of the effect of cardiac glycosides on the respiration of heart tissue.

Other problems being investigated in the department included:—chemical evaluation of antacids, electrophoresis of alkaloids, applications of non-aqueous titrations, photomicrographs of certain drugs, paper chromatography of barbiturates, testing of samples of distilled water for bacterial contamination, the effect of solvent mixtures on solubilities and the polarographic measurements of contaminant lead and arsenic content of chemicals.

Report of Professor M. L. Van Vliet, Director of the School of Physical Education

The School of Physical Education has had an exceedingly busy and difficult year — busy because of the increased enrolment and extension services rendered, and difficult because of facility deficiencies.

Staff members of the School have provided instruction for forty-eight students taking the Degree Course in Physical Education, approximately three hundred first-year students in Education and seven hundred and fifty in the Service (Required) Program. They have also supervised the intramural program with over two thousand participants and the intercollegiate athletic teams in twelve different sports.

Associate Professor W. D. Smith has been on sabbatical leave during the session and is completing the requirements for a doctorate degree at the University of Buffalo. Mr. A. F. Affleck has started work toward a master's degree in Recreation at the University of Indiana. A new and valued addition to the staff is Mr. Stephen Mendryk.

Members of the staff have been active in both local and national professional associations. Dr. M. L. Van Vliet is National Vice-President of the Canadian Association for Health, Physical Education and Recreation and President of the Western Canadian Intercollegiate Athletic Union. Mr. Affleck and Miss P. Austin are chairing special committees of the National Canadian Association.

Extension. As usual, the School personnel have been active in various phases of extension services. Many radio and television appearances were made. Contributions both as instructors and advisers were made to the Recreation Leaders School, the Badminton School, the Recreation Institute, Basketball Officials' Schools, the Track and Field Clinic, the Edmonton Recreation Commission, the Alberta Recreation Board, and as adjudicators for school festivals. Seventeen addresses were given to schools, service clubs, and home and school groups. Mr. Eriksson and Miss Hastie were active in the St. John Ambulance, Mr. Affleck in C.A.H.P.E.R. and the Y's Men's Club and the

Alberta Recreation Association, Mr. McLachlin in the Boy Scouts, and Dr, Van Vliet in Rotary, the Edmonton Recreation Commission, the Alberta Recreation Board and C.A.H.P.E.R.

B.Ed. in P.E. The demand for graduates in physical education continues to exceed the supply. However, a first-year class of twenty-one tends to indicate that more students are becoming aware of physical education and recreation as professions and prospects look brighter for the future. The possibility of increased facilities in the near future will encourage more students to elect physical education or recreation or both for careers.

Service Program. This program required of all first-year students is at the saturation point with present facilities, yet the need for physical fitness, balance, carriage, poise, grace, co-ordination and relief from tension, continue to be important factors in the life of a student. The right amount and the correct type of exercise, along with minimum swimming proficiency for all students, is the goal of the School.

Education Students. Students in the Faculty of Education are gradually coming to realize that most of them will have some direct or indirect responsibility for physical education in the schools. Every effort is being made to arrange for smaller classes for more efficient instruction.

Intramural Sports. The intramural program was highlighted this year by "Frontier Day" and by the over-all increase in participation. Participation results follow:

	<i>Men</i>	
	1954-55	1955-56
Number of Sports	11	10
Number of Teams Playing	122	142
Number of Games Played	526	610
Number of Participants	1535	1792
<i>Women</i>		
Number of Sports	8	8
Number of Teams Playing	65	71
Number of Games Played	223	252
Number of Participants	657	947

Intercollegiate Athletics. The intercollegiate athletic program continues to be hampered by limited competition. There is a need for a completely revised program to be discussed at the presidential level of the four western universities.

Conclusion. The increased demand for graduates in physical education, and the new government grants to communities for qualified recreational directors, point out the need for more graduates in these two fields. People are beginning to realize that good community leadership requires professionally trained personnel. The University of Alberta, through increased staff and facilities for the School of Physical Education, is endeavoring to meet these needs.

Report of Dr. A. L. Doucette, Director of the Calgary Branch

1. General Items:

(a) Student Enrolment:—(See page 35.)

The overall day-time enrolment at the Calgary Branch during 1955-56 is just under 400 students, an increase of ten per cent over the figure for 1954-55.

Adding to this, the total evening class enrolments, with and without credit, it is correct to say that we are rendering University service to some 1100 to 1200 people. This is a significant contribution to the Calgary community.

This year there was a very heavy increase in Arts and Science student population.

In the Faculty of Education, there was no gain in the number of students in the one year Emergency Training Program over the figure for 1954-55. There was however a gain of fourteen per cent in the number of students in the Bachelor of Education Degree program. Regardless of this latter gain, the enrolments in the Faculty of Education reflect the critical teacher shortage situation and they serve to indicate that we are not training sufficient teachers to meet the province's needs.

In retrospect, the enrolment of full-time day students during 1955-56 is nearly three times the 1945 figure when the Calgary Branch was established.

With Rosedale Public School students in Grades I to IX removed from the North Hill Campus, the University Branch has filled all the space vacated, and already additional space is needed.

(b) Grounds and Premises—North Hill Site:

With the exodus of staff members from the unsatisfactory offices in the old dental hut, into permanent offices in the West Wing of the Education Building, staff are considerably more content.

With the expansion in buildings at the Provincial Institute of Technology and Art, there is no longer any place for expansion of the Calgary Branch of the University, on the present site.

(c) Closing Exercises:

This annual function continues to be an important and successful affair, and is considered to be significant in the lives of the students at the Branch. It affords an opportunity for the Calgary public and the parents of students to become acquainted with University offerings in Calgary and to meet with staff members and with visiting officials.

For the first time, His Honor Lieutenant Governor J. J. Bowlen, Official Visitor, of the University was member of the Platform Party at the Closing Exercises in Calgary on April 6, 1956. Other visiting officials were the Chancellor Dr. E. P. Scarlett, who acted as Chairman of the Exercises and who was also Guest Speaker; Dr. Johns, Dean of Arts and Science, who also represented the President; Dr. H. T. Coutts, Dean, Faculty of Education; and Morrison L. Watts, Director of Curriculum in the Department of Education who represented the Minister of Education.

(d) Open House:

Staff and students decided to dispense with this activity this year because it was felt that there was nothing particularly new to show the parents and public over that which was displayed last year.

(e) Radio Talks:

Miss King, Mr. Lindstedt, Dr. Doucette, Dr. Woodsworth, Dr. Aikenhead and Dr. Finn contributed to Radio Broadcasts which were heard in the cities of Edmonton and Calgary.

(f) *Teachers' Conventions:*

Dr. Doucette was the Alberta Teachers' Association guest speaker at Fairview. Contributing to conventions in the Southern part of the Province, were Dr. Finn, Miss Newton, Dr. Aikenhead, Mr. Lindstedt and others.

(g) *Career Days:*

Staff members, both in Arts and Science and in the Faculty of Education, rendered assistance at Career Days in and out of the City of Calgary.

(h) *Teacher Recruitment Meetings:*

Meetings were held under the auspices of the Provincial Home and School Association and the Senior Chambers of Commerce of Edmonton and Calgary and Lethbridge. Dr. Doucette, Dr. Aikenhead and Dr. Woodsworth were invited to attend and served at all three points.

(i) *Western Canada Conference on Teacher Education:*

This Conference was held in Vancouver in May, 1956. The Calgary Representatives this year were Dr. Woodsworth and Mr. S. A. Lindstedt, both from the Faculty of Education.

(j) *Western Canada Student Teachers' Conference:*

This Conference was held in Winnipeg in the Spring of 1956. Student representative from Calgary this year was Bruce Northam.

(k) *Education Undegraduate Society:*

This Faculty club was especially active this year and brought in speakers from the Alberta Teachers Association in Edmonton, School Trustees representative from Medicine Hat, also the Dean of the Faculty of Education, and others.

(l) *The President's Personal Contact with the Branch:*

President Stewart was able to find time to address the Student Body in the Fall of 1955 and to meet with the staff in the Spring of 1956. These contacts by the Senior Administrative Head of the University are appreciated and of very great value.

(m) *World University Service:*

The Treasure Van Sale was held in Calgary for the second year, and while the receipts were not as high as last year, the sale was very successful. Miss Marian Frayn, the 1955-56 Overseas Delegate to Japan gave several talks in the Calgary Community and also to students at the Branch illustrating her talk with colored slides taken in Japan. There will be no Overseas Delegate from the Calgary Branch during 1956-57.

2. *Special Reports:*

(a) *Faculty of Arts and Science:*

The staff of the Faculty of Arts and Science in Calgary this year numbered nine full-time members and three part-time members. This was a decrease of one part-time staff member, since the Latin 2, which Miss Giles offered last year was taken over by Dr. Graham in addition to his French classes. Mrs. Bagley replaced Dr. A. Roginsky, giving help in both Biology and Chemistry laboratories, where Dr. Roginsky was a lecturer in Chemistry alone. No new subjects were offered this year, but Geology I is to be added in the Fall of 1957, with a part-time Instructor.

The enrolment in Arts and Science almost doubled rising from 45 full-time and 8 part-time students in 1954 to 89 full-time and 14 part-time students in 1955. Of these, eight dropped out during the course of the year. The increase in Arts and Science seems to have occurred mostly among borderline students or those from very modest homes who perhaps could not have afforded to go to Edmonton. This is a laudatory trend, but preliminary scrutiny of final examination results corroborated by evidence through the years seems to indicate that we had a much poorer student body this year.

The *Humanities Association* continued its activities with Dr. Willard Allen as Chairman. Meetings for the year included the following:

- November 9: Mr. Ernest Watkins of Calgary:
1955 "The Decline of Socialism and Its Effect on Society"
- December 7: Mr. Gordon Peacock, Lecturer in Drama, University of Alberta, Edmonton:
"Canadian Theatre: The Myth and Reality".
- January 20: Dr. J. W. T. Spinks, Professor of Chemistry, University of Saskatchewan:
1956 "Science and the Humanities".
- February 17: Mr. J. T. Jones, Professor of English, University of Alberta, Edmonton:
"George Bernard Shaw, 1856-1950".
- March 13: Dr. V. E. Graham, Associate Professor of French, University of Alberta, Calgary:
"Foreign Languages in Education: a Comparison of Michigan and Alberta".

The *French Alliance* continued to meet at the University with Dr. Graham as President. Two visiting speakers from France were heard during the year, and in addition to regular monthly meetings, the French Alliance sponsored the presentation in Calgary of the play "Knock" For this event there was an audience of about 300 people. Expenses were high (\$282.50) and receipts pretty well offset the expenses (\$213.25). The French Alliance, however, was well pleased with results.

(b) *Faculty of Education:*

At the end of the 1954-55 term, Mr. C. Hampson, lecturer in Science and Mathematics, was transferred to the Faculty of Education, Edmonton. To replace him at Calgary, Mr. Sidney Lindstedt, Superintendent of Schools at Rocky Mountain House, was appointed as Associate Professor.

The heavy class loads of the teaching staff at the Calgary Branch, somewhat increased by the extra enrolment, resulted in the appointment of one new staff member in the field of science. Dr. Lee Ford, from Butler, Indiana and a Graduate of Minnesota, was appointed as Assistant Professor to fill this position.

Mr. Earl Buxton, Associate Professor in Education in the field of English at the Calgary Branch was granted one year's leave of absence to attend Stanford University in order to pursue studies for his Doctoral Degree. Mr. Buxton was granted a Fellowship under the Abraham Rosenberg Foundation, which made it possible for Mr. Buxton to continue his Graduate Studies.

Mr. Frank Baer, Sessional Lecturer in English, replaced Mr. Buxton for the 1955-56 Session.

During the summer of 1955, Rosedale Elementary School was built near the Campus, and leased to the Department of Public Works. This made it possible to move the University Demonstration School off the Campus, and nine classrooms and two offices were released for University use. Two of these rooms became office space for staff members; the library was extended by the addition of one room; the art room was enlarged to the extent of one half room; women students were granted one room as a lounge; the bookstore occupied one room; and the remaining rooms were used as additional lecture rooms.

Moving the Demonstration School off the Campus, resulted in the classrooms being used less for demonstration work. Because of this condition, practically all of the Practice Teaching for 2nd-Year Bachelor of Education students was taken at the Rosedale School. The Demonstration School Staff are to be commended for the fact that they accepted the increased load of Practice Teaching without complaint.

(c) *Advisory Services:*

1. *Accommodation:*

Late in the fall of 1955 the Advisory Services at the Calgary Branch were moved to a spacious office on the third floor of the Main Building. This has been a vast improvement, especially from the point of view of privacy for interviewers, over the accommodation in the old Air Force hut. The consideration of the Administration in the matter of furnishing this office attractively has been very much appreciated.

2. *General Nature of Activities:*

This year, as in previous years, Advisory Services at the Calgary Branch has functioned in the service of students who require counselling in all areas of human adjustment: course selection, vocational guidance, and social and emotional adjustment. In addition this service has continued its responsibility for the standardized testing program carried out during Registration Week and for the filing of this and other information in individual folders. It has been the policy at this Branch to encourage students to receive an interpretation of these standardized test results from the Counsellor. Many have done so.

3. *Some Specifics:*

It is conservatively estimated that during the period, September to May, an average of three hours per day, Monday through Friday, was spent in interviewing students or prospective students. The Administration's provision of Tuesdays and Thursdays as non-lecture days has expedited the scheduling of these Advisory Services interviews. It is hoped that this policy will be continued.

Only one student has been referred to the Provincial Guidance Clinic this year for special testing and therapy. This contrasts with an average of five to seven in previous years.

By far the greatest number of counselling hours have been spent in helping students to better their skills.

4. *Relations with N.E.S.:*

The arrival of a full-time employee of the National Employment Service (Mr. Baker) on this Campus has released Student Advisory Services from the duty of helping students find summer employment. Relations with Mr. Baker have been very cordial and his willingness to do everything in his power to place our students has been much appreciated.

5. *Liaison with Edmonton:*

There is a normal flow of records between the Director's Office in Edmonton and the office of the Counsellor at the Calgary Branch. The assumption of the Edmonton office of the responsibility for scoring and tabulating Freshmen Tests represents a big improvement for this Branch over the time when these tests were scored by hand locally. Both Dr. Cook and Mr. Hough have been most considerate of the needs of the Calgary Branch. Moreover, in their talks at Career Days in southern Alberta points, they have actively promoted the Calgary Branch as the logical institution for higher learning for those who live in the south of the province.

(d) *The Practice-Teaching Program in 1955-56;*

Dr. J. D. Aikenhead, Supervisor of Practice-Teaching, reports that four groups were served: those taking the one-year Junior "E" Course; those taking the 2nd-Year of the B.Ed. Program; students returning (Transfer Program) for the 2nd-Year of the B.Ed. Program after teaching on a Junior "E" or Temporary License; and the students in the 2nd-Year of the Industrial Arts Program.

Dr. T. G. Finn and Mr. S. A. Lindstedt arranged schedules and supervised the last three mentioned groups. Dr. Aikenhead arranged routines for the Junior "E" Students

The students in the B.Ed. Program have nine weeks (three weeks to a classroom) of Practice-Teaching for mornings only. The weeks are not continuous, because a short intermission is arranged. This approximates 135-140 hours for each student in the classroom. During the last three days, the student is in full charge of the classroom. This was an experiment initiated by Dr. Finn in 1954-55 and has been found useful. Those students in the Transfer Program receive additional assignments in Practice-Teaching to add up to the same time the full-time B.Ed. students receive. All students receive at least one visit from a University staff member, while most students had two to three visits. A detailed report was given by the staff member to each student after the visit, in addition to a conference covering the lesson. The demonstration-teacher also files a synoptic report for each three-week period for each student.

A variation was tried in the Junior "E" Program in continuous rural work. The students arranged themselves in pairs. Each pair goes to a city room for one-week before Christmas. Each pair goes to a rural school before Christmas. The same two students return to the same rural school after Christmas for a two-week period. This gives each students four-weeks practice-teaching, and three in the same rural classroom. At the close of the first-week in the rural school, all of the students who will work in that rural school, begin to plan an Enterprise or a Unit of work for Grades 7-8-9. This planning continues until the first week of January under the direction of a University teacher. Two conferences were held Saturdays with the students, demonstration-teachers, and University staff together. This insures greater continuity and guarantees that each student would leave in May with some work ready for the next year, and also will possess a basic understanding of the core for instruction in the elementary or the junior high school.

For the first time a set figure was allocated by the Director for Practice-Teaching Travel Expenses, which assured every student being visited at least once, while most were called upon twice and some had three visits. Most

demonstration-teachers worked hard. University staff members put in many extra hours both on planning Units and in driving and visiting, and reporting on visits as well as conferences afterwards.

Dr. Aikenhead reports that all in all, the effect of team work resulted in a very successful year of Practice-Teaching.

(e) *Athletics and Recreation:*

Mr. L. Goodwin and Mrs. J. Epton are responsible for the Athletic Program at the Calgary Branch.

In addition to the regular Service Program of Physical Education for the Arts and Science students, and the prescribed course for those in Education, an intensive and highly successful Intramural and Intercollegiate Program of Athletics and Recreation was carried out.

The intramural activities were carried on during the noon intermission after the class hours and to a limited extent during the evening. This program was devised to give every individual at the University Branch an opportunity to be a participant in the team or individual sport of his choice, and to encourage each individual to take part in at least one sport. Each activity was open to all registered students.

A brief breakdown of the activities and the number participating regularly is as follows:

Basketball — men	60
Basketball — women	40
Volleyball — men	40
Volleyball — women	40
Curling —	50
Tumbling —	10
Badminton —	25
Table Tennis —	100

Intercollegiate activities, both practices and playing games were confined to the evenings. Because of the lack of gymnasium space, it was necessary to rent a hall from the local School Board. Most of the activities were organized into Leagues under the auspices of the CALGARY INTERCOLLEGIATE ATHLETIC ASSOCIATION, an organization made up of the Provincial Institute of Technology and Art, Mount Royal College, Olds Agricultural School, and the University of Alberta, Calgary. Some exhibition games were played both with local and outside organizations. Our teams travelled to take part in games in Nanton, Olds, Red Deer and Edmonton. No team travelled more than four times. Our rule of prohibiting a player from being on more than one "Varsity" team was enforced.

The number participating on each "Varsity" team would include:

Basketball — men	10
Basketball — women	10
Hockey —	15
Volleyball —	10
Badminton —	8

(f) *Library:*

The library has had a good year and a busy one. The second West Wing, opened for the Fall Term of 1956, has proved useful for meeting the problem

of seating accommodation. The attendance is represented by a figure of 50,186, an increase of 12,144 (30%) over 1954-55.

The overnight stack figures rose to 8,930, an increase of 1,655 or 23% over 1954-55. The overnight reserves increased by some 33 1/3%. Reading Room Reserves were up 9%

There has been a slight increase in the number of books borrowed and lent under the inter-library loan plan. This year we have attempted to assist three staff members in particular: Mr. Martin, in a study in the field of Physics; Dr. Lee Ford, guest instructor from Indiana in the field of genetics; and Dr. Victor Graham in French Literature. This year is the first year that we have lent books to Universities in the United States.

We are particularly happy with the addition to our library of early reports and maps on Canadiana — gift from the Pearce Collection, Champlain Society publications — 55 volumes, gift from Rutherford and also the Palliser Report (photostat).

The growth of the Library is indicated by the present situation: with the addition of the second wing, the Library is twice its original length, The end door of 1946 is now the central one, but space is still at a premium. Nine units of steel shelving, totalling 189 feet, arrived in February last and already are half filled.

Miss Grant, the Librarian, reports that the Library, being organized on the Open Stack principle, must have books, pamphlets, pictures, records, periodicals, and other material, *accessible* to staff and students. She states that this requires more space. More students are using more books and are learning to utilize more services.

(g) Assistant Provost Duties:

Dr. Allan Gibb, became the Assistant Provost, succeeding Mr. Earl W. Buxton, who had served six years in that office. Dr. Gibb acted as Assistant Provost, responsible for student discipline and as a liaison person between the Students' Council and the Administration.

Dr. Gibb reports that at the student level in spite of the usual friendly rivalry, there existed a remarkable spirit of cooperation between the two major faculties and the Students' Union and the other Campus Organizations. The increased Arts and Science enrolment and the energetic leadership of the Arts and Science Club Presidents, resulted in an outstanding Arts and Science Club contribution to Campus Activities. Student groups sponsored a full program of social and other extra-curricular Activities which received generous Faculty support.

The Calgary Students' Council were guests of the Edmonton Council in the Fall, and during the winter the Edmonton Council returned the visit. Both groups felt that these visits contributed a great deal toward mutual understanding and to the solution of common problems. Representatives from Calgary attended both the Fall and Spring meetings of the Committee on Student Affairs in Edmonton.

The Handbook and Constitution of the Students' Union at Calgary was completely revised this year.

There were no disciplinary problems involving University students during 1955-56.

(h) *Medical Services:*

The Medical Services were under the direction of Miss M. O. Cogswell, R.N., under a *pro tem* Committee consisting of:

Chairman: Miss M. O. Cogswell

Ex-Officio Members: Dr. Doucette, Dr. Graham

Faculty of Education representative: Mr. L. Goodwin

Faculty of Arts and Science representative: Dr. E. Guy

All examinations and follow-up referrals were handled at the Calgary Associate Clinic. The services rendered under this plan were very satisfactory, and the Director recommends a continuance of the plan.

(i) *Evening Division Classes—non-credit:*

The following courses were given:

"Principles of Gardening", Alex Munro

"Conversational French", Mrs. F. Graham

"Law for the Layman", M. H. Patterson

D. C. Prowse

A. M. Harradence

"A Background to Current Events", Ernest Watkins

(j) *Evening Division Classes—for credit:*

The following courses were given:

Accounting 1

Education 376

Economics 1.

Report of Dr. John W. Gilles, Director of the Summer Session

1. Registration and Attendance

The advance registration for the University of Alberta Summer Session reached a total of 2089, an increase of fifty over that of 1954. A total of 415 students failed to attend so that the actual registration amounted to 1674, an increase of sixty-eight over that of the preceding year. To this number must be added another 160 students who were registered in the Emergency Teacher Training Program. Thus the total number of students in actual attendance in the 1955 Summer Session was 1,834. A summary of the attendance figures follows.

Summary of Attendance

<i>Faculty or School</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>
Education	557	867	1424
Arts and Science	61	36	97
Graduate Studies	86	25	111
Commerce	1	.....	1
Household Economics .....	.....	3	3
Nursing .....	.....	5	5
Pharmacy	5	.....	5
Agriculture	3	.....	3
Specials	12	11	23
Auditors	2	.....	2
	<hr/> 727	<hr/> 947	<hr/> 1674

Emergency Teacher Training Program

First Session students	89	
Second Session Students	71	
	<hr/>	
	160	160
		<hr/>
		1834

Of the students who attended the regular Summer Session, approximately 85% were registered in the Faculty of Education, and about 6% in each of the Faculty of Arts and Science and the School of Graduate Studies. It is gratifying to note that the registration in the School of Graduate Studies increased sharply over that of last year, 111 as compared to seventy-eight, an increase of almost 42%. There was also a noticeable increase in the number of students registered in the Faculty of Arts and Science, ninety-seven this year as compared with seventy-three in 1954.

During the three-year period, 1952 to 1954, registrations in the regular Summer Session dropped slowly but steadily from 1700 in 1951 to 1608 in 1954. The registration figures for 1955 suggest that this downward trend has now been reversed. This is especially significant in view of the fact that in the spring of 1954, the Department of Education made it possible for elementary teachers to secure permanent certification after one year of training, whereas prior to that time two years had been required.

With respect to the Emergency Teacher Training Program, two points of interest may be noted. Of approximately 129 students who were graduated in the summer of 1954 from the First Session of the Emergency Teacher Training Program, only seventy-one returned in 1955 for further training. This summer there were only eighty-nine students registered in the First Session of the program as compared with 132 last year.

2. Instructors

The Summer Session teaching staff, including that of the Emergency Teacher Training Program, comprised a total of ninety-nine instructors, six more than in 1954. The following summary indicates the sources from which these instructors were drawn.

Classification of Instructors

Full-time members of University staff		57
Instructors from Affiliated Institutions		1
Visiting Instructors from Alberta:		
Department of Education	4	
School Systems	11	
Others	2	
	<hr/>	17
From Other Provinces		12
From U.S.A.		11
From New Zealand		1
		<hr/>
		41
		<hr/>
		99

Visiting instructors from outside the Province included the following:

Dr. Willard J. Brandt	Wisconsin State College, Milwaukee
Dr. Thomas C. Burgess	Oregon State College, Corvallis
Mr. Lawrence R. Cluderay	Vancouver, B.C.
Miss Kathleen Collins	South Burnaby Schools, B.C.
Dr. William R. Crooks	Oregon State College, Corvallis
Mr. Geoffrey O. B. Davies	University of British Columbia
Dr. Peter F. Dembowski	University of British Columbia
Dr. A. Fred Deverell	University of Saskatchewan
Miss Catherine U. Eichelberger	Cornell University
Mrs. Elizabeth H. Feniak	University of Manitoba
Mr. John C. Garrett	Canterbury University College, N.Z.
Dr. Lucille F. Hill	Portland Public Schools
Mr. C. H. Howatson	Victoria College, B.C.
Miss Isabel M. Laird	Queen's University
Miss Elizabeth Magee	Acadia University, N.S.
Dr. Wallace Matson	University of Washington
Mr. Stanley R. Mealing	Carleton College, Ottawa
Dr. John E. Owen	Florida Southern College, Lakeland
Mr. James C. Reaney	University of Manitoba
Dr. Peter D. Scott	McGill University
Miss Dorothy A. Stoflet	Columbia University
Dr. Stuart R. Tompkins	University of Oklahoma, Norman
Dr. Robert R. Wark	Yale University
Miss Juanita Wolff	Portland Public Schools

No serious adverse criticisms were received about the work of any of the visiting instructors. On the other hand, excellent reports were received about several of them.

3. Courses

Originally it was planned to offer ninety-three courses in the 1955 Summer Session, eighty-five for students in the regular session, and eight for those in the Emergency Teacher Training Program. Eventually four courses in the regular Summer Session had to be withdrawn because of very low registrations. Of the eighty-nine courses which were actually offered, eighty-two were full courses and seven were half courses, all but one of the latter occurring in the Emergency Teacher Training Program. Thirty of the courses offered had laboratory requirements which varied from five to fifteen hours per week. Industrial Arts courses and the course in Office Practice were taught at Victoria Composite High School by members of the staff of the Edmonton Public Schools. No Summer Session courses were offered in Calgary.

4. Size of Summer Session Classes

A definite attempt was made this year to control the size of Summer Session classes in certain courses by imposing registration quotas. The courses affected here fell into two classes: Those where specialized equipment needed for teaching was available in limited quantities; and courses in the fields of History, English, and Elementary Education. Generous quotas plus a more generous provision of courses in these areas than in previous years, provided assurance that students' needs were adequately met. In the cases of certain

popular courses, especially where these were required courses in certain degree programs, multiple sections were provided.

The following table shows the distribution of Summer Session classes according to size.

Distribution of Classes According to Size

10 students or less	7
11 to 40 students	57
41 to 60 students	30
61 to 80 students	10
81 to 100 students	3
<hr/>	
TOTAL	107

It will be noticed that sixty-four classes enrolled fewer than forty students each. There were ten classes which drew from sixty-one to eighty students each. The nature of these courses was such that in none of these was serious hardship imposed on either the students or the instructor. This leaves only three classes in which the registrations exceed eighty. These were actually the three sections of a single course, Education 376—Educational Psychology, which drew a total registration of approximately 250 students. The registration in each section barely exceeded eighty. The three instructors concerned handled the course without difficulty, and did not even request the assistance of readers.

The above table suggests, but does not show too clearly, that a fairly large number of Summer Session classes are relatively small. In seven classes ten or fewer than ten students were enrolled. This is a sharp reduction from the number of such classes in 1954. All told, there were fifty-one classes, or nearly 50% of the total, in which there were fewer than thirty students. It would seem that, insofar as class loads are concerned, the Summer Session is succeeding in establishing satisfactory teaching conditions.

Experience seems to show that with the present scales of instructional fees and instructors' honoraria, the Summer Session can meet its direct costs on an average class load of thirty students per instructor. In the 1955 Summer Session the average class load was thirty-three students as against thirty-five in 1954.

5. Special Events Program

That part of the Special Events Program which was directly sponsored by the Summer Session consisted of two musical programs and an illustrated lecture. The Williams String Quartet opened the series with a very fine recital of chamber music. The illustrated lecture was given by Mr. Charles J. Everest of Calgary, a guest instructor, whose topic was "The Deep South". The other musical program was the Choral Recital, presented by the combined music classes of the Summer Session under the direction of Mrs. G. C. Higgin and Mr. Lawrence Cluderay. Miss Lois Callaway, a Summer Session student, appeared on this program as solo pianist. Attendance at the lecture and at the choral recital was very good; that at the Chamber Music Recital could have been better.

The Rutherford Library sponsored a series of five weekly recorded programs of music and plays which were presented in the Music Listening Room.

During the course of the Summer Session, students had an opportunity to attend three one-act plays produced by members of the drama classes under the general direction of their instructors, Mr. Robert Orchard and Mr. Gordon Peacock.

A Service of Worship was held in Convocation Hall on July 24th, with the Reverend E. J. Thompson, Principal of St. Stephen's College, as Minister in charge. A sufficiently large number of students attended the Service to warrant its continuance.

6. *Routine of the Summer Session*

The "Get-Acquainted" Tea for the staff of the Summer Session and their wives again took the form of a delightful garden party given by President and Mrs Stewart. The staff meeting held on the evening of the second day of lectures was very well attended and served a useful purpose. A weekly memorandum was sent to all instructors and administrative officers to keep them informed of Summer Session activities and procedures. Towards the end of the Session, instructors were asked to make suggestions for the improvement of future Summer Session. Very few reports were received. Significant suggestions contained in them have been forwarded to the appropriate University authorities.

The revision of registration procedures for the first day of the Session, which saw Convocation Hall brought into use, was definitely a move in the right direction. Students were able to complete their registrations with a minimum of delay and confusion.

The following officials whose duties brought them into immediate contact with Summer Session students were on duty during the Session.

Dean of Women and Warden of Pembina Hall	Miss M. Simpson
Warden of Athabasca Hall	Miss Margaret Lien
Warden of Assiniboia Hall	Mr. Earl Buxton

Brief reports were received from these officers. Copies of these reports are on file in the offices of the Director of the Summer Session and the President.

The Edmonton Journal was again very generous with space this summer and gave the Summer Session excellent publicity.

7. *Student Affairs*

The general meeting of the Students' Union, called at 3:00 p.m. on July 7th, drew a total attendance of about only twenty-five students. Although about 800 students were in classrooms or laboratories at the time of the meeting, the attendance was very little lower than what it had been in the immediately preceding years when there were no 3:00 p.m. classes. It is regrettable that there is so little interest in student affairs.

The Students' Council made one innovation this year when they appointed a part-time Director of Recreation, in the person of Mr. A. W. Eriksson. The Director worked closely with the members of the Students' Council who were responsible for men's and women's athletics and was also instrumental in improving very considerably the organization and administration of these activities. The appointment of a Director of Recreation did not seem to introduce any changes in the overall recreational patterns of students attending Summer Session. The Students' Council, at its last meeting, decided to

continue at its own expense for at least another session its experiment with the Director of Recreation. It hopes that by that time it will be able to assess more adequately the desirability of continuing with such an appointment.

No resolutions directed to the University were passed either at the Students' Union general meeting or by the Students' Council.

8. *Concomitant Activities*

The following activities, although not directly sponsored by the Summer Session, were given official encouragement and administrative assistance.

Civil Defence Courses

Sponsored by the Provincial Civil Defence Organization, these courses were given between the hours of 3:00 and 5:00 p.m. For the first time since these courses were first given on the campus, there were regular Summer Session courses scheduled for 3:00 p.m. This situation probably has some effect in causing a reduction in the number of students who took the Civil Defence course. Approximately sixty teachers completed these courses this summer, as compared with 120 in 1954.

Tuberculin Skin Testing Program

Approximately 700 Summer Session students were given the Tuberculin Skin Test in a testing program organized by Dr. G. R. Davison, Director of the Division of Tuberculosis Control, Department of Health. Those who reacted positively to the test, were later given an X-ray examination.

Report of Professor Osman J. Walker, Director of the School of Graduate Studies

It has been necessary for the School of Graduate Studies to hold six regular meetings, each of two or three hours in length, to transact the business that needed to come to its attention. Many of the members of Council also spent additional time as members of Committees appointed to deal with special matters and to bring their recommendations to Council. Special mention should be made of the fine work done by the Revisions Committee that has spent many hours in reviewing the marks of Graduate Students prior to each of the two Convocations as well as bringing forward recommendations for Graduate awards.

During the year some alterations have been made in the regulations of the School which should make them free from certain ambiguities that have appeared in their interpretation. The greatest change has been in the admission requirements for the Ph.D. degree which now will allow a candidate with a bachelor's degree from the University of Alberta to be admitted if he also holds a Master's degree, or its equivalent, from another University. Some discussion has also taken place on the "proposed program of Graduate studies in Educational Administration and Supervision in the Faculty of Education." The Council has shown much interest in the part of the program concerned with the training of candidates for the Master's and Doctor's degrees.

Registration

The registration in the School this year is 36 greater than in 1954-55. The changes are as follows: increases of 10 M.A.'s, 26 M.Ed's and 4 M.Sc.'s; decreases of one Ph.D. and 3 Special Graduate Students. Changes in the

classification of students passed by General Faculty Council will undoubtedly reduce students in this latter category to one half its present value as the School will have in it only the graduates, "Provisional Graduate Students" who are qualifying for admission to advanced degree programs while other graduates not working for degrees will be included as "Special Students" in the Faculty or School where they are taking their courses.

The total registration for the academic year amounted to 367 made up of 131 in the Summer Session and 236 in the regular Session. After allowing for 42 registered in both Sessions, the net registration is 325. Of the students in the regular Session, 23 were women—less than 10% of the total. The distribution of students according to Session and degrees sought was as follows:

	Regular Session	Summer Session	Total	Dupli- cates	Total less Dupli- cates	%
Master of Arts	42	12	54	6	48	18.6
Master of Education	62	93	155	27	128	49.6
Master of Science	68	3	71	1	70	27.1
Doctor of Philosophy ...	12	1	13	1	12	4.7
<hr/>						
Working for degrees	184	109	293	35	258	
Special Students	52	22	74	7	67	
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Total	236	131	367	42	325	

It will be noted that 93 of the 131 graduate students in the Summer Session were working for the M.Ed. degree. During the regular Session candidates were proceeding to advanced degrees in twenty-seven departments or divisions as follows:

Animal Science	5	Mathematics	2
Bacteriology	3	Medicine and Clinical Medicine	1
Biochemistry	3	Modern Languages	2
Chemical Engineering	6	Pharmacy	2
Chemistry	9	Philosophy and Psychology	14
Civil Engineering	7	Physics	5
Dairying	1	Physiology	2
Educational Psychology	13	Plant Science	14
Electrical Engineering	2	Political Economy	7
Elementary Education	7	Secondary Education	43
English	10	Soil Science	4
Entomology	1	Surgery	1
Geology	9	Zoology	1
History	10		

It is of interest to note that the 12 candidates for the Ph.D. degree are distributed thus.

Animal Science	2	Physics	1
Biochemistry	1	Plant Science	6
Philosophy and Psychology	1	Secondary Education	1

Recommendations for Degrees

The Degrees awarded at the November 1955 and May 1956 Convocations were 51 made up of

		%
M.A.	7	13.5
M.Ed.	12	23.1
M.Sc.	32	61.5
Ph.D.	1	1.9
	—	
Total	52	

If one compares registration with the granting of degrees it will be noted that M.Ed. candidates represented 49.6% of the total registration for degrees but only 23.1% of degrees awarded, while M.Sc. candidates were 27.1% of the registration and received 61.5% of the degrees. This anomaly is due to the fact that many M.Ed. candidates are working for their degrees by Summer Session attendance and extramural courses so their registrations carry over for four or five years, as a rule, while the M.Sc. candidates are usually full-time students and complete their program in one or two calendar years.

Scholarships and Fellowships

These were awarded in fields which included Chemistry, Chemical and Petroleum Engineering, Education, Geology, Physics, Plant Science and Psychology. There were no applicants for two of the scholarships offered.

Report of Mr. B. B. Peel, Acting University Librarian

Introduction

In the year under review the big event in the Library was the resignation of the chief librarian, Miss Marjorie Sherlock (now Mrs. Hugh Grayson-Smith) in August. Mrs. Grayson-Smith, when she came to the library in 1945, brought to her position imagination and initiative. These qualities she exercised in the planning of the Rutherford Library, one of the finest library plants in the country. During her administration the rapid increase in the book collection now centralized in the new functional building, and the growth in the size and efficiency of the staff, brought the University of Alberta Library to the forefront in university library development in Canada in the post war period. Mrs. Grayson-Smith's retirement has been a loss to the library profession.

Accommodation

During the summer of 1955 both the Education Library and the Calgary Branch took over additional space in the buildings in which they are housed. The Education Library, which had previously occupied two floors, now has rooms on three. Two rooms directly below the Main Reading Room, Room 218, were converted into a stack area. The stacks were moved from 218 thus making more reading and working space available in the Main Reading Room. In the Reserve Reading Room above, a wall was knocked out and a small room behind it converted into a desk and stack area. By these alterations the Education Library doubled its reading room space. The Calgary Branch expanded into another wing, thus adding 35 feet to the length of the reading room.

In the Rutherford Library three seminar rooms were taken over temporarily

as offices for teaching staff because of the shortage of office space on the campus.

Use of the Library

The year has marked a levelling off in the circulation statistics for the first time in several years. In the Rutherford Library circulation of books remained the same as last year, while the Education Library reported a sharp decline and the Calgary Branch reported an increase of 15%. The total circulation of all three libraries was 196,782 volumes, or a decrease of 3%.

The attendance for the three libraries was 460,286, an increase of 48,000 or 12% over last year. The increased number of students studying in the library is noticeable, for during the rush hours the reading rooms have a well-filled appearance.

A feature of the service this year has been the increased use of the main stacks by the students enrolled in Arts and Science. The number of stack permits issued to senior and honours students has nearly doubled, while the statistics indicate that there were 22,531 stack entries as compared with 14,716 last year. Access to the stacks has influenced the circulation figures in that permit holders use many of their books in the stack area without borrowing them for home use.

The Library again provided books for Evening Classes offered in Lethbridge, Medicine Hat, Red Deer, and Vegreville. A collection of books for each course was sent to the four centres where the public libraries co-operated with the University by supervising and circulating the books.

Reclassification

The reclassification of the main book collection in the Rutherford Library to the Library of Congress Scheme has proceeded smoothly. During the year books in the subject fields of music, art, pure and applied sciences, crime, education, political science, and international relations were completed. The books remaining are concentrated on Tier 5, and in the Reference Reading Room. The coming year will see the completion of the reclassification program.

Miscellaneous Services and Activities

The Photostatting Service processed some seventy separate orders originating from a variety of customers both on and off the campus, including the medical profession and the Research Council. The largest order was from a library for the reproduction of Captain John Palliser's famous report which is unobtainable in the secondhand book market. Although customers sometimes think our rates are high, the substantial deficit sustained by the services indicates that we are not charging enough to cover our costs. The service has been under the supervision of Mr. Noden who has ironed out some of the operational problems in photostatting pages from bound volumes, thus improving the quality of the prints.

As in other years the Library offered noon-hour concerts in the Music Listening Room. These have been well patronized by the students. However, the Thursday evening programs have too much competition from other campus activities to attract listeners in any number. A high fidelity, co-axial speaker in a handsome cabinet, the gift of the graduating class of 1955, was installed during the year.

A number of interesting displays were placed on exhibition in the cases in the rotunda. Probably the most colorful of these was the February display which featured material provided by some of the foreign students enrolled at the university. The British Council's travelling exhibits of books, *British Book Design 1955* and *British Medical Books*, were shown in the Rutherford Library this spring.

In June 1955, two librarians visited the Rutherford Library to study our organization and routines. Miss Katherine Ball, Professor of Cataloguing at the University of Toronto Library School, spent two weeks in the Cataloguing Department. Mr. Robert Rogers, now Librarian of the University of New Brunswick, visited the Library for a week studying departmental organization.

Staff

During most of the year the Library had a full-time staff of 34, of whom 14 were qualified librarians. In addition, a professional cataloguer and a typist are employed for the reclassification project. In April of last year two clericals were added to the permanent staff, one for the Order Department, and the other to work in the Reference and Circulation Departments, half-time in each.

As noted above, the Library lost its administrator, Miss Sherlock, at the end of August. Since then the task of the acting librarian has been made easy by the efficiency with which departmental heads have run their departments, and the co-operation which they and the junior staff have given in all matters.

In May Miss Dorothy Ryder, Circulation Assistant, resigned to take another post; we were unable to fill her position during the year. Mrs. Melba Wilson and Miss Bonney White resigned during the summer, and were replaced by Miss Louise Range and Miss Leona Thompson respectively. Among the non-professional staff there have been the usual number of resignations and replacements. In the Calgary Branch the lengthy illness of Miss Irene Burnett placed an undue strain on Miss Grant, the Librarian, during the busy winter term.

Library Committee and Library Sub-Committee

The Library Sub-Committee met four times during the year and the Library Committee once. A survey of the teaching departments and their book needs made during 1954-55 was used as the basis for a revision of departmental appropriations. A formula for the apportionment of book funds was applied to the information collected to work out the new appropriations. The result was studied and approved by the Sub-Committee, and later by the main Committee. The new appropriations are a much fairer division of the book fund.

The Acting Librarian gratefully acknowledges the assistance received from the Committee and the Sub-Committee. In particular he wishes to thank two members of the Sub-Committee, Dr. Thornton, chairman, and Dr. Johns, for advice and assistance with administrative problems.

Order Department

The Order Department is responsible for the ordering of all books, supplies and equipment for the entire Library system. Last April in a reorganization, the ordering of current periodicals, and the recording of issues as they arrived were transferred to this department from the Reference Department. An

additional clerical was added to the department to handle these. Orders were sent out, mainly in October, for 1162 periodical subscriptions.

During the year the department ordered 7,536 volumes, an increase over last year. An additional 440 volumes were received as gifts. The department set up a routine for searching for missing issues of periodicals and succeeded in securing 171 issues needed to complete sets. The Library Sub-Committee approved the purchase of fifteen runs of periodicals, and these were ordered.

Heavy purchases were made from the Col. J. H. Woods Trust Fund last spring and again this spring. This collection of books on American-Canadian relations is one of which the University can be proud. If the titles now on order are secured, the fund will be exhausted.

Cataloguing Department

Unlike other years, this year the Cataloguing Department has had no changes in staff. Less part-time help from student assistants was needed because of the greater efficiency of the staff, and also because of a decrease in the number of books processed.

The Department processed 4,362 new titles. While this was 552 fewer titles than last year, they totalled 128 more volumes than in 1954-55. The number of titles reclassified was 9,159, a decline of 2,469 titles in reclassification. In the reclassification program the experience of the Department has been that books in some subject fields take more time to classify than books in other fields; thus the books in the literature section done last year could be put through faster than the books in the sciences on which the department was engaged much of the year just past.

This year's work included 9,556 volumes accessioned, 9,618 new volumes catalogued, 13,573 volumes reclassified, 22,062 books lettered, and 72,108 cards typed. Other materials catalogued consisted of 26 phonograph records and 6 filmstrips.

Reference Department, Periodicals and Binding

This department in addition to its strictly reference function is responsible for the interlibrary loan service, and the supervision of the Periodical Reading Room, the Rare Book Room, the Microfilm Reading Room, and the map and document collections. In addition, it is responsible for the binding of books and periodicals for the whole Library.

The statistics show an increase in all areas of service. Attendance in the Reference Reading Room was 123,734 as compared with 114,223 last year. The circulation was 7,689, while the number of reference questions answered was 3,351. In the Periodical Reading Room the attendance was 12,138, an increase of 10%. The circulation of journals was 20,503, an increase of 14%. The staff has prepared a subject index of the periodicals shelved in the Periodical Room, and this has proved a useful guide to students and teaching staff.

The Library has continued to build up its document and map collections. During the year 9,264 documents were received and processed. Fewer maps were added than last year, only 311; the collection now totals 5200 sectional maps. An additional 55 theses were added to the collection of theses, 30 at the Spring Convocation and 25 in the Fall. A total of 666 pamphlets were added to the pamphlet file.

The Interlibrary loan service sent out 72 volumes to other institutions, borrowed 91 volumes, and purchased 97 films for the use of staff and students of this university.

A total of 2,407 periodicals and books were bound during 1955-56. This year the Library enlisted the services of an additional bindery, and thus was able to break the backlog of binding.

General Circulation Department

This department consists of the Reserve Reading Room, the Main Delivery Desk, the stacks, and the Browsing Area. This year the administrative burden carried by Miss Freifield, Circulation Librarian, was particularly heavy as she was without a professional librarian to assist her after Miss Dorothy Ryder's resignation. As the Library did not succeed in finding a trained librarian as a replacement, an extra non-professional graduate was hired, but Miss Freifield had to supervise many of the technical details which would normally fall to her assistant. The addition of a half-time clerical (shared with Reference) eased the strain of a heavy circulation and of staffing the Circulation Desk and the Reserve Room for 13½ hours per day.

The circulation from the Reserve Room was 38,502, and from the Main Delivery Desk and Browsing Area 37,167. Attendance in the Reserve Room was up 19%, in the Browsing Area by 11%, and in the stacks 53%.

This year the increased use made of the stacks has made it necessary for the staff to give more time to the admittance and supervision of student stack users. The Circulation Department found it necessary to send out more recall notices for overdue books than heretofore. The Department reports that as reclassification nears completion the inconvenience to stack users is becoming less.

Report of the Branch Libraries

Applied Science Reading Room

This reading room, which serves the Faculties of Agriculture and Engineering, and the Department of Chemistry, continues to be heavily used. The attendance was 49,044, an increase of 3,767 over last year. The circulation figure of 9,792 for books and journals does not give a complete picture of the use made of the reading room since this figure is for overnight loans, not the use made of books in the room. The reading room staff answered 1901 reference questions.

The Applied Science Reading Room has been rapidly building up its basic collection of books and journals on engineering and the petroleum industry. The problem of stack space has now become acute, but the construction of an additional tier above the desk area is under discussion, and this would alleviate the space problem.

Law Library

The attendance in this reading room was 35,961, a slight increase over the previous year. The circulation of over-night loans was 4,758. Since the students have free access to all the books in the room and the adjoining stack, the circulation figure represents only a small part of the reading done by the law students. The number of reference questions answered by the Law Librarian was up by 17%.

In the interest of building up the legal collection, five legal periodicals and a similar number of loose-leaf services were added to the subscription list during 1955-56. These were in addition to the usual acquisitions.

Medical Reading Room

This reading room serves the Faculties of Medicine, Dentistry and Pharmacy, and the Schools of Nursing and Physiotherapy. The attendance for the year was 30,594, an increase of 11%. This increase in attendance is most noticeable in the use made of the reading room during the evening. Circulation for home use was 18,141, as compared with 17,284 last year.

Medical practitioners in Edmonton and throughout the province were lent 4,830 books and journals. Most of these titles were borrowed by doctors in the city of Edmonton. The service to rural doctors was replaced by the photostatting service. The Medical Librarian estimated that the amount of time spent during the year in getting books and answering reference questions for medical practitioners to be equivalent to more than six full working days.

Education Library

As indicated earlier in this report, the Education Library expanded into additional space last summer so that it is now housed on three floors of the Education Building. A booklift was installed to connect the three floors. The seating for readers was increased from 75 to 154.

The attendance figure for the year was 29,729, while the circulation figure was 39,096. The circulation was lower than last year, due at least in part to the fact that for the first time senior and graduate students had access to the stack area, and used books there instead of taking them out for home use.

The Library was again open two evenings per week during the winter session for the benefit of students enrolled in evening classes. In May the Canadian Education Association-Kellogg Foundation's annual workshop was held. The Library supplied books for the project but was not able to give the service given in other years because the library was being remodelled.

Calgary Branch

In the summer of 1955 a new wing 35 feet in length was added to the reading room of the Calgary Branch. Some new steel shelving was installed and some additional catalogue filing cases added. Scheduled for installation during the summer of 1956 are an acoustic ceiling, and new lighting for the stack area.

The Library immediately put the extra reading space to good use, for the attendance figure this past term was 50,186 as compared with 40,042 in 1954-55, an increase of 25%. The circulation figure was 20,144, an increase of 15%.

Miss Grant, the Calgary Librarian, operated the library under difficulties during the year as her assistant, Miss Irene Burnett, was on sick leave for three months, December through February. During this period two untrained persons in succession, substituted, but neither had time to become thoroughly familiar with the routines. Miss Grant is to be commended for maintaining the same level of service in spite of staff shortages.

Professional Activities

Members of the Library staff have actively participated in their professional organizations, national and provincial. At the 10th Canadian Library

Association Conference Miss Norma Freifield, Miss Caroline Hicks, and Mr. Peel took part in a panel on cataloguing. Miss Freifield was Chairman of the Proceedings Committee for the Conference. Miss Hicks is currently Chairman of the Cataloguing Section of the Canadian Library Association. Miss Lilian Leversedge was for part of the year Assistant Editor of the Alberta Library Association Bulletin.

Report of the Provost, Professor A. A. Ryan

General

The tradition of student responsibility and self-government was well maintained on the campus this year, thanks in a large measure to the able leadership of student officials under Mr. John Bracco, president of the Students' Union. Mr. Bracco was himself awarded the *Mothersill Memorial Scholarship* for his outstanding contribution to student life in the University.

Student Government

During the year the Students' Council has concentrated upon improving the effectiveness of its operation of the machinery for student government which has been built up in recent years.

A closer relationship in matters of scheduling and discipline is being established between the Council of the Students' Union and the Executives of the various Faculty and School Clubs. For example, when it was agreed by Students' Council that the time had come to bring into line those few organizations whose campus social functions were loose in their enforcement of the University ban on liquor, they received full cooperation. The result has been the best policed and best conducted social year since the war.

A serious effort is also being made by the Scheduling Committee of the Students' Union to keep in better touch with the multifarious activities sponsored not only by the Union and its campus-wide clubs, but by the Faculty, School, Departmental, Religious and other Clubs which operate independently of it. It is hoped by this means to overcome some of the difficulties caused by lack of continuity from year to year.

Student Activities

The number and variety of student extra-curricular activities have undergone no major changes during the year. The success of some ventures, such as the Mixed Chorus, the Interfraternity Song Fest, and the Engineers' Ball, for example, is now taken as a matter of course. A few departures from the usual might be instanced, however.

Perhaps the highlight of the year's activities was the 19th Conference of the National Federation of Canadian University Students to which this University offered hospitality in October, 1955. The event was remarkable for the energy and organization ability displayed by Mr. Douglas Fitch and those who aided him with arrangements, and for the degree to which the students, the administration, the city and the province cooperated in ensuring its success.

A highlight of the second term was the "Mock" or "Model" Parliament sponsored by the revived Political Science Club under Mr. Claus Wirsig. Plans have been laid for a political awareness week next year.

The student newspaper, the "Gateway", also enjoyed a successful year under an arrangement whereby the Editors-in-Chief changed over in mid-

session. The "Gateway" has at times threatened to become the voice of the small group operating it; this year the editors held to a policy of trying to speak in a constructive way for the student body as a whole. The "Gateway" also revived the campus literary magazine "Stet" which had failed to maintain an independent existence.

Most successful of the major athletic teams was the Golden Bears Hockey Team which maintained its leadership in western intercollegiate hockey by winning the Hamber and Hardy trophies. The growing interest in cross-country running was climaxed in the fall by the clean sweep registered by Alberta runners against Saskatchewan. During the winter the underdog ski team made a remarkable showing against strong opposition from American colleges at the Banff Ski Meet. Intramural sports involving the largest numbers of students as participators were basketball and curling.

Public Relations

Student effort in the field of organized public relations continues at a commendable level. The three major activities were the seventh Annual Civic Banquet, the eighth Annual Parliamentary Dinner, and the fifth Annual Varsity Guest Week-End. Guest Week-End, in particular, proved successful beyond expectations. A fourth event, the more recently instituted Varsity Football Night in cooperation with the Edmonton Eskimos Football Club, has proved more difficult to handle because of scheduling and other conflicts beyond the control of the Student Public Relations Officer, and may be discontinued. A totally new event in the form of a reception for first year students sponsored at the Edmonton Gardens during Freshman Introduction Week by the City of Edmonton, was enthusiastically received. It is hoped that it will become an annual event.

Residences

Life in the student residences has undergone a transformation in the past three years because of the almost complete yearly change-over made necessary by the large numbers of freshmen applications. Although at the end of the year ninety percent of the residents apply to return, only a fraction can be readmitted to ensure some measure of continuity. In such circumstances, the assistance of the House Committees in guiding student residence life has proved even more valuable than in the past.

Students' Union Building Program

With the possibility imminent that the University Drill Hall may be condemned as unsafe, the question of adequate facilities for athletic and social functions on the campus has become pressing. Students' Council has offered a substantial financial contribution towards a projected "recreational building" adjacent to the Students' Union Building, and has created the office of Building Director to give continuity to their support of the plan.

Discipline

It is a pleasure to be able to report once more the absence of serious disciplinary problems on the campus. Not only have student executive groups on campus welcomed the request that they exercise full control over events which they sponsor, but the Interfraternity Councils have been cooperative in supervising the activities of the fraternities.

Report of the Dean of Women, Miss Maimie S. Simpson

Interviews

During the term students often request opportunities to discuss the courses they are presently taking especially following the results of term tests; and towards the end of the year to discuss the courses to be taken the next year.

Now and then high school students request appointments to discuss the offerings of the different faculties, or to get some information on the subjects to be taken in a faculty already chosen.

There were, during the year, one or two more serious emotional cases in which cooperation was given to the Infirmary staff and to Student Advisory Services.

Babysitting with greater frequency than previously, student assistantship in the Library and work in exchange for room and board in private homes gave a considerable number of students the financial assistance they required.

Extracurricular Activities

With the increase in student enrolment the number of dances, both formal and informal, is increasing. A considerable number of these dances were attended upon invitation from the students.

The Coffee Hour for first-year girls, twenty or so at a time, still seems to be the best way for the girls to get to know the Dean of Women. This year these short visits were more appreciated than at any time in the past. It is hoped that arrangements may be made to get a list of those girls who attend in Calgary during their first year or even, their first two years so that invitations may be sent to them also.

A number of student executives were entertained when plans for social functions were being discussed e.g. Education Undergraduate Society, Macleod Club, Graduation Committee etc.

Women graduands in Honors in the Faculty of Arts and Science, in Medicine, Dentistry, and Pharmacy were entertained at tea.

Special attention was given to the Wauneita Society whose members are so often campus hostesses. To Miss Ruth Geddes, the President, and to her executive we are grateful for a most successful year.

Upon the request of the fraternity women the monthly meetings of the Panhellenic Society were attended, in, as usual, an advisory capacity.

The University Mixed Chorus was accompanied on its out-of-town three-concert series to Tofield, Wetaskiwin and Camrose. Mrs. Harry Scargill will chaperone the group on its tour of Southern Alberta and the Okanagan Valley from April 30th to May 12th.

The Infirmary

Students confined to the infirmary or the University Hospital were visited.

Dr. Vant's Lectures

Dr. Ross Vant's three-lecture series to the First-year Women was, once again, appreciated very much.

Public Relations

Three broadcasts over CKUA, one television interview over CFRN, and nineteen addresses to overtown organizations including the Museum of Arts,

the Jewish Women, Kiwanis Women, and a number of Church Groups were given during the 1955-56 term.

Report of Dr. A. J. Cook, Director of Student Advisory Services

Maintenance of Services

The operation of Advisory Services involves recurring annual procedures which have to be maintained. These are all a part of the fundamental task of the department, which is a counselling service for the student, whether prospective, undergraduate or graduate. During the year, there were over 1300 individual interviews. Some students were of course seen more than once.

Probation Procedure

The January probation lists from the various faculties and schools offering freshman instruction were dealt with somewhat differently this year. Students in academic difficulty, who were above average in ability according to our records, were interviewed in groups, and then followed through individually as seemed desirable. This plan saved a great deal of time and gave the students a chance to discuss their difficulties with people in the same course as themselves.

We also tried to check in detail students with low ability, re-testing as necessary, with a view to helping such students face alternative means of training or employment the more realistically, should they continue to be swamped by university studies. The students of average ability seemed to come in voluntarily, so that a good overall coverage of students on probation was obtained.

Transition from High School to University

In October, notices were posted inviting students to attend one study tutorial at 1:30 p.m., with periods arranged for one week, Monday through Friday. Each student was given a questionnaire to complete, as a basis for discussion in the group. The remarkable feature of this modest experiment was that 250 freshmen came. This serves as a pretty clear indication of a felt need on the part of new students for some assistance in regard to study skills. More needs to be done to help the new students make a less difficult transition from school to university ways of thinking. The School of Nursing continues to take advantage of Advisory Services for this purpose, and periods of instruction, given this year by both Mr. Hough and Mrs. Aldridge, were devoted to fundamentals of mental skill and development. It is hoped that schools and faculties concerned with new students will give increasing attention to these matters.

Financial Aid for Students

The Director served as acting-Chairman of the University Committee which administers the Student Assistance Act for undergraduate students. This was to relieve Dean W. H. Johns, who served as Vice-President during the past session. This experience was useful, particularly as the Director was made a member of a special committee set up at the request of the University Senate to study all forms of financial assistance to students. The report of the Committee will be considered by the Board of Governors and the General Faculty Council.

An additional appointment was made to the Department, with Mr. A. J. B. Hough joining the staff on September 1st, 1955. Assistant Professor Lolita Wilson was granted leave of absence for a year, and has been doing advanced study at the University of Minnesota. Mrs. Rita Aldridge has acted capably as a sessional counsellor during Miss Wilson's absence. Dr. J. G. Woodsworth continues to act as Counsellor at the Calgary Branch.

The Director attended meetings of the Western Personnel Institute and the Western College Association held in San Francisco in November, 1955.

Report of Dr. J. F. Elliott, Director of Student Medical Services

The Student Medical Services have had an active year. Members of the freshman class for 1955-56 were given complete physical examinations. The Infirmary has provided out-patient service, and in-patient care for sick students who did not require hospital facilities.

Dr. J. W. Scott has retired as director but has agreed to remain on the Committee where his experience and advice contribute much.

Dr. Adam Little has joined the Infirmary Medical Staff and he and Dr. Cantor have had the assistance of a rotating senior interne from the University Hospital.

Miss Revell and the members of her nursing staff have carried on their duties in their usual efficient manner.

The present infirmary building becomes more inadequate and unsatisfactory as the student population increases.

Dr. S. Spaner has continued to give sympathetic psychiatric help to an increasing number of students and has been assisted by Dr. G. Carson.

Dr. M. Hutton has continued to act as consultant in gynecology.

The B.C.G. program for medical students has continued and has been extended to include the School of Physiotherapy.

A close liaison with Student Advisory Services has continued.

Report of the Radio Director, Miss Margery W. MacKenzie

During the past year the University of Alberta has been broadcasting radio programs over station CKUA for a total of four hundred hours. Slightly over three-quarters of this total has consisted of programs of recorded classical music. The remaining eighty-eight hours of programming, however, has been made up of talks and discussions on a wide variety of subjects, all broadcast from the University's campus studio between October and the end of March.

One hundred and ten members of the faculty and staff of the University participated in these varied programs. Forty-five of this number took part in more than one program, and about a dozen in at least three or four. Whatever success the year's broadcasts have enjoyed can be attributed in very large measure to the generous assistance, — voluntary, time-consuming and without additional remuneration, — of these members of the faculty and staff. For certain programs, notably those in the fields of drama, art and music, they were joined by some fifty guest broadcasters from outside the University.

Ten of the fourteen program series presented were convened by members of the faculty. These comprised talks and discussions dealing with literature, science, current affairs, educational research, extension activities, music, art

and drama. The other four series, which included three music and a travel series, were arranged by members of the staff of Radio Service.

The *Music Hour*, which has been a regular program since 1927, has had, we believe, the longest continuous career of a radio program in Canada. Broadcast five times a week, it and the *Saturday Evening Concert*, now being offered for its third successive year, are presented on a year-round basis. When the University's studios close for the summer months these programs, still prepared by the Radio Service staff, are broadcast from the CKUA studios in the Alberta Block.

Following the practice of the past few years students interested in radio have been employed to operate the controls and to announce the University programs. Mr. Alan Baker has been the chief announcer, replacing Mr. Neil Smith who, after three years' training and experience on the announcing staff of Radio Service, joined the permanent staff of the Canadian Broadcasting Corporation. Mr. Raphael Engle, the President of the Student Radio Society, has served his first season as operator-announcer. Student assistants are trained and supervised in their work by the Program Producer, Mr. Alan Hood.

The very active student Radio Society presented several regular series on Thursday evenings, including *Campus Report*, *My Country*, and *Talent from the Campus*. Several plays were produced and a number of special events on the campus publicized or reviewed. Broadcasting of the student programs originated this year for the first time in the Students' Union Building where complete studio facilities are now installed.

University program series have continued to be publicized by printed program schedules, available on request. The permanent mailing list for these program guides has been noted to increase with remarkable steadiness at the rate on one listener a day during the winter season of broadcasts when talks and discussions constitute about two-fifths of the programming, and at somewhat less than half that rate during the summer months when music programs only are broadcast. About 2800 copies of each schedule are now distributed to listeners.

A certain number of programs have been rebroadcast in other parts of Alberta through the kind cooperation of several radio stations. Radio station CFAC in Calgary rebroadcast a series of five programs on elementary education and a series of four programs directed towards prospective university students and their parents. The latter series was also carried by station CFGP in Grande Prairie and station CHAT in Medicine Hat. In addition, a varied group of about fifteen programs was forwarded to Red Reer for rebroadcast over station CKRD by the local Home and School Association.

Report of Professor R. S. Eaton of the Western Board of Music in Alberta

1. Statistics (Candidates and Fees)

Candidates	February	May	June	Total	Fees	
Practical	137		1100	1237	\$1168.15	(February)
Theoretical	336	457		793	5518.00	(May, June)
				2030	6686.15	

This shows an increase of 361 candidates and an increase in fees of \$1091.40.

2. Revenue from the sale of theory papers (Dec. 1, 1954 to Nov. 30, 1955)
—\$62.63. This shows an increase of \$28.29.

3. Centres

(a) *Practical:*

February, 1955: Edmonton, Calgary, Lethbridge, Banff and Red Deer.

June, 1955: Acme, Banff, Blairmore, Bonnyville, Bowden, Calgary, *Castor*, Dawson Creek, Donnelly, Edmonton, Falher, Fort Kent, Girouxville, Glendon, Grande Prairie, Hythe, Innisfail, Lethbridge, McLennan, *Medicine Hat*, Peace River, Pincher Creek, *Ponoka*, Red Deer, Rycroft, St. Paul, Spirit River, Sundre, *Vegreville* and Wetaskiwin.

(*Italicized centres were new in 1955*)

(b) *Theoretical:*

February, 1955: 39 centres

May, 1955: 41 centres

4. Examiners for Practical Examinations

Mr. Filmer Hubble, Winnipeg; Mrs. F. J. Adaskin, Saskatoon; Mr. Leonard Leacock, Calgary; Mrs. Dorothie Langmo, Edmonton; Mr. Edgar Williams, Edmonton; Mr. Lloyd Powell, Vancouver; Mrs. E. M. Hawkin, Montreal; Mr. H. Leyton-Brown, Regina; Mrs. H. D. Sherry, Saskatoon; Mr. R. M. Pounder, Edmonton; Miss D. Stanton, Edmonton; Mr. G. K. Greene, Edmonton; Mr. A. B. Crighton, Edmonton.

5. Diplomas Granted

Fall Convocation: L.Mus.: Mary Lou Dawes, Eleanor Lillian Kerr

A.Mus.: Marsha Pearlman, Pamela Russell, Marilyn G. Smith, Henry Waack, Penny Wright

6. Broadcasting (*From November, 1954 to March, 1955*)

During the first part of the 1954-55 season, the same policy as in other years was followed and bi-monthly broadcasts were given by the following well-known Edmonton teachers and musicians: Doreen Stanton, pianist, who gave two recitals, Edgar Williams, violinist, and Rosemary Holsworth, pianist.

In the early part of 1955, a series of lectures illustrated by recordings on the Growth of Music was given by Professor A. B. Crighton.

7. Recitals

Through the month of November, 1955, regional recitals, at which awards were presented, were held in six centres and young visiting artists again contributed greatly to the programs. Centres in which recitals were presented were: Edmonton, Calgary, Lethbridge, Red Deer, Grande Prairie and Bonnyville. The guest artists were: Marilyn Neubauer and Gary Miller of Calgary and Marilyn Smith, Priscilla McLean, Kathleen Heuer, Mark Jablonski and Stephen Hayward of Edmonton.

8. Scholarships, Bursaries and Prizes

In 1955, awards totalling about \$5,000.00 were made to outstanding students. The Government of the Province of Alberta again contributed \$1,000.00 in the form of ten bursaries. One gold medal and thirty-five silver medals were awarded.

The Calgary Hudson's Bay Company store has discontinued its part of the \$200.00 scholarship but the Edmonton store gave its usual \$100.00. The Edmon-

ton Journal has increased its scholarship from \$100.00 to \$200.00 commencing in 1956.

NEW AWARDS

The Berwyn Women's Institute are giving a bursary of \$25.00 to be divided between two students.

The Hythe Home and School Association gave \$10.00 to be used as two prizes of \$5.00 each.

9. Pedagogy Course

A course in the principles of piano teaching was arranged by Mr. G .K. Greene, Extension Lecturer in Music, Grande Prairie for three days early last September. Fifteen teachers from points throughout the Grande Prairie district were most enthusiastic about the instruction given by Mr. Lloyd Powell of Vancouver. A repetition of this course has been requested for next year with the promise of an increased enrolment. It is hoped to arrange similar courses in other parts of the Province.

Report of Lt.-Col. D. E. Smith, Officer Commanding, University of Alberta Contingent, Canadian Officers Training Corps

During this academic year the officers of the Contingent were Lt. Col. Douglas E. Smith, Major G. W. Reed, Major A. T. Elder, Captain W. C. Wonders, and the Resident Staff Officer, Major R. C. W. Hooper, CD. The Honorary Colonel of the Contingent was Col. H. A. Dyde, OBE, MC, QC.

Capt. D. Burns was attached from the Loyal Edmonton Regiment to assist with the training.

During the summer of 1955, 63 Second Lieutenants and Officer Cadets took their practical training courses. Six members of the Contingent trained in Germany with the 1st Canadian Infantry Brigade. (Four Second Lieutenants and Officer Cadets will be training in Germany in 1956). Of those training in Canada in 1955, Officer Cadet K. A. Reardon won the Sword of Honour as the best all-round cadet at the Royal Canadian Ordnance Corps School.

The 1955-56 session showed a decrease in enrolment; 22 first year cadets were enrolled during this period. In addition 7 Officer Cadets were enrolled under the Regular Officer Training Plan and took their training with this Contingent. The actual number of Cadets taking part in the theoretical training given during the winter of 1955-56 was 22 first year, 32 second year, and 23 third year. One third year dental student was given a short-service commission and will be subsidized through his third and fourth years of dentistry.

The Contingent participated in a number of University activities such as the Varsity Night parade at the football game and the Remembrance Day service. In cooperation with the other two services, a band concert by the RCAF Tactical Command Band was presented on 7 March, 1956.

On 21 Nov., 1955 a programme was presented for the Engineering Students Society by the COTC and RCAF Squadron. This programme of talks by Senior RCAF Technical Officers and a Panel discussion presented by Senior Officers from HQ Western Command of the Army. A display of engineering and electronic equipment was presented at the conclusion of the programme.

The first year cadets received a course of lectures in the subjects "Intro-

duction to the Army" and "Current Affairs". The second year cadets were given courses in "Organization and Administration" and "Tactics". The Tactics course was conducted by means of practical problems on a landscape model, and was well received by the cadets. Subjects taken by the third year cadets included "Military History", and a short course in "Leadership and Man Management", to introduce these officers to some of the problems with which they will be confronted during their practical training this summer. A "Current Affairs" discussion period for all cadets was carried out each month.

While the lectures on the courses mentioned above were mainly given by Contingent Officers, the following members of the University Staff participated: Prof. P. S. Warren, Prof. F. D. Blackley, Prof. G. R. Davy, Prof. L. E. Gads. Two former Officer Cadets, Mr. W. R. Kelley and Mr. K. M. Stewart also assisted. Considerable use was made of films provided by HQ Western Command in conducting these courses.

A number of students who would be unable to continue their university education owing to lack of funds are being assisted by the benefits received from the Regular Officer Training Plan.

While the primary function of the Contingent is to provide well trained officers who can take their place in the Regular Army or Militia either in peace or war, the overall training programme constitutes a real contribution to the education of our students. The training and experience received in man management and leadership is valuable in any profession or in any participation of the citizen in the affairs of the community or state.

Report of W/C L. E. Gads, Commanding Officer Reserve University Squadron, RCAF

Following the completion of the 1954-55 University term last May, some 60 Pilot Officers and Flight Cadets of this Squadron were posted for duty at various RCAF stations across Canada and three of them were posted to RCAF bases overseas. S/L B. E. Riedel and F/O A. B. Weston reported to Kingston, Ont. W/C L. E. Gads travelled overseas on a liaison tour of RCAF bases before reporting for instructional duties at RMC.

The new Resident Staff Officer, F/L Ross Curry took over his duties in September 1955 and with the departure of F/O A. B. Weston from this University, P/O J. A. Agrios was appointed on the staff to assist in the administrative and instructional duties.

Eight cadets reported to U. of A. under the Regular Officer Training Plan in September 1955 and six more were accepted under this plan during the winter. Indications are that the numbers accepted under this plan may increase in the future.

Recruiting for the Reserve Squadron improved this year with 17 Cadets of the quota of 23 being accepted. There was a particularly good response from female applications and a number of good candidates were not accepted because of lack of vacancies in the particular branches.

The training programme for the Reserve University Squadron consisted of lectures and liaison visits. A good attendance and enthusiastic interest was maintained throughout the 64 hours of training. The lecture programme included speakers from the Squadron Staff, University Staff, Tactical Air Command Headquarters, Establishment Climatic Detachment at Namao. The

liaison visits included conducted tours of such establishments as the RCAF Survival Training School, the Search and Rescue Headquarters, 105 C & R Flight, and the new Supply Depot building at Namao.

The Tri-Service lounge was used extensively by the members of the three services for social and study purposes. Other events included the Remembrance Day Ceremony, participation in the Varsity Football parade, Band Concert, and the highlight social event being the Tri-Service Ball held at HMCS Nonsuch.

Ten members of the squadron will be graduating from University this year. One of these is ROTP; another is a Regular Officer completing his degree following graduation from RMC. The remainder will be transferred to 418 Sqdn. (Aux) or the Supplementary Reserve.

The Reserve Officers School for the first year Cadets will be held this year at CMR, St. Jean, P.Q. near Montreal. Twenty-four first year Cadets (Reserve and Regular) will be attending the basic indoctrination course there before proceeding to RCAF stations across Canada to begin aircrew and technical training. W/C Gads and F/L Curry will serve on the Training staff of the Reserve Officers School at CMR.

Report of A/Lieut Commander R. S. Van Alstine, Commanding Officer, University of Alberta Naval Training Division

During the 1955-56 academic year the officers of this University Naval Training Division tender were A/Lieut Commander R. S. Van Alstine, Lieut. Commander (L) R. E. Phillips, Lt. R. S. Knowler, S/Lt. (P) C. Kerr, S/Lt. (S) R. Harle, S/Lt. E. Schwartz, S/Lt. J. C. Butt and the resident Staff officer Lt. T. S. Millman. All of these officers are on the staff of the University or are students enrolled in University courses.

A/Lieut Commander R. S. Van Alstine replaced Lieut. Commander (L) R. E. Phillips as Commanding Officer University Naval Training Division on 13 February, 1956.

During the 1956 Summer Training period 23 cadets took their practical training.

The 1955-56 session showed an enrollment of 26 cadets. The actual number of cadets who underwent winter training for the 1955-56 term was 23, 10 first year, 5 second year, 8 third year. There were 7 cadets released from this University Naval Training Division tender.

A total of 4 cadets received their promotion to the rank of Sub Lieutenant in September of 1955.

The training programme for first year cadets embodied parade training, instructional films in boat work, practical training in Knots and Splices, Communications, lectures in current affairs, Naval History and Organization, and Navigation Part 1. Second year training was designed to give cadets an opportunity to take charge. A review of Navigation Part 1 was carried out plus review courses in Gunnery, Communications, and Seamanship. Third year cadets understudied divisional officers and aided in instruction work.

The Division participated with the other two Services in the Remembrance Day Service, the Tri-Service Ball and a Band Concert presented by the RCAF Tactical Command Band on 7 March, 1956.

Four third year University Naval Training Division cadets were seconded to

the training staff of the Sea Cadets and Navy League Cadets for instructing purposes.

Three cadets were given leave of absence for one year in order that they might secure finances to return to University.

The primary purpose of the University Naval Training Division is to provide Reserve Naval Officers, but the training scheme goes beyond this purpose. It is designed to imbue trainees with a sense of duty whether ashore or afloat and to better fit them to carry on their functions as Canadian citizens.

Extracts from the Report of the Director of the Department of Extension, Mr. Donald Cameron

I have the honor to submit the forty-third annual report on the extension activities of the University for the year ending March 31, 1956. This report reflects a substantial increase in time and effort given by all faculties, departments and schools, to extension and adult education activities. Generous support has been forthcoming from all members of the staff in this very important job of making the resources of the University available to the Province it serves.

Informal contact between members of the staff and the public is invaluable. It is gratifying to note that an estimated 1,205 talks, lectures and demonstrations were given by members of various departments to community organizations and groups across the Province to audiences which totalled some 75,000. An estimated 189 radio and television presentations were also prepared by members of the staff as compared with 126 last year. In addition to radio and television talks and those lectures given off the campus, staff members have been most generous with their time in dealing with requests for information and help with specific problems.

One hundred and sixty-three short courses, classes and conferences, again a substantial increase over the number offered last year, were held at various points throughout the Province. Department records show that over 6,290 people attended these classes, which involved an average of thirty hours of class time. The subject matter of these classes shows an unusual variety and includes anthropology, comparative religion, financial statement analysis, metallurgy, psychology, geology, geography, industrial relations, prospecting, sculpturing, school administration, nursing, astronomy, gas metering, painting, music and drama. The chart found in the appendix to this report indicates the wide distribution across the province of these various projects.

Courses for University credit were offered in Edmonton, Calgary, Red Deer, Vegreville, Medicine Hat and Lethbridge. Three hundred and eighty-six students, mainly teachers, were enrolled.

A most important need of this Province is that of leadership training. Through courses for adults and young people, both urban and rural, supported by farm organizations, cooperatives, organized labour, school and community organizations, and as well through a series of district meetings in close co-operation with the farm organizations, a substantial amount of worth-while work has been accomplished in this field during the year. It is gratifying to report that there is some evidence that this effort is producing positive results.

The trend of book circulation from the Extension Library over several years has been upward. Circulation figures from Library records this year show an increase in open shelf circulation of about 6% and an increase in

travelling library circulation of about 19%. The book stock at the close of the year stood at 41,531, exclusive of pamphlets and periodicals. As has been the case for many years, people across the Province have been studying through the Library such subjects as world affairs, automation, home-making, community recreation and others. To people across the province, often in isolated areas, the Library performs a valuable and important function in making easily available, the world of books. The often difficult and time-consuming job of providing answers to specific questions is another important aspect of this Library's service.

Due in part to the inception of commercial television service, the Visual Instruction Division has recorded a sharp drop in the distribution of films, filmstrips and slides. The movement of general interest material has been especially slow. The Division has continued to provide a projection and maintenance service and to advise generally on utilization of visual aids.

The Petroleum Industry Training Service, which is sponsored by the Provincial Government, the Canadian Petroleum Association and the Canadian Association of Oil Drilling Contractors, has, during the year, offered thirty-two training courses, which have been attended by 1,309 persons. There has been a substantial increase in the number of courses given this year of a technical nature. Another and important part of the work is instruction in safe working methods. The safety program has provided instruction and training for groups of drilling contract firms, not large enough to warrant individual safety staff members.

Both as a centre for the arts and as a focus of continuing education, the Banff School of Fine Arts has maintained an enviable reputation. Apart from the Summer Session in the arts, which was attended by 479 people, including 40 students enrolled in University credit courses, some sixty-five different groups of national and international origin, attended short courses, educational conferences and meetings at the School during the year. In the field of business education as well, the School has within a very few years, achieved an excellent reputation through its Advanced Management program and subsidiary series of specialized training courses in various aspects of business. These include the Executive Development course, the course in Personnel Management and the course in Financial Management and Petroleum Accounting.

Special mention should be made of the work of the University's Extension Specialists in Music, Art and Drama. Working with small groups, and for the most part, in rural areas, these staff members have done much to heighten the interest in these arts and to encourage their development. Concrete evidence of their achievements, particularly in the field of drama, are evident. Apart from assistance of a more informal nature, some forty courses in these fields were organized which were attended by 958 students.

TABLE IV—STATISTICAL INFORMATION, DIVISION OF VISUAL INSTRUCTION

Number of Moving Picture Films in Library:

Silent, 8mm and 16mm	524
Canadian Film Institute	16
National Film Board	835
Sponsored Films	221
Sound Films, General	1,431
<hr/>	
Total Films in Library	3,026
Number of new films added to the library during the year	124
(included in the above)	
Number of film strips in library	2,238
Number of sets of 2x2 slides in library	208

FILM CIRCULATION

	1955-56	1954-55	Comparison
Number of reels silent film sent out	840	1,141	—301
Number of reels sound film sent out	16,390	20,049	—3,659
Total sets of moving pictures sent out	4,057	5,086	—1,029
Total number showings of films, sound and silent	5,775	7,362	—1,587
Total audience viewing films	477,430	523,930	—46,500
Number of times projection service supplied	290	300	—10
Number of screenings for groups in screening room	41	74	—33

SLIDES AND FILMSTRIPS

	1955-56	1954-55	Comparison
Number of 2x2 slides sent out	138	223	—85
Number of times slides used	101	179	—78
Total audience viewing slides	4,356	6,729	—2,373
Individual filmstrips sent out	3,713	4,046	—333
Total audience viewing strips	86,653	102,387	—15,764

TABLE V—GENERAL STATISTICAL SURVEY

Lectures

University teaching staff	633	
Department of Extension staff	572	
	<hr/>	1,205
Aggregate attendance		75,530
Number of radio talks:		
Extension staff	34	
Regular teaching staff	155	
	<hr/>	189
Conferences and short courses, Table II		6,294
Studio Theatre attendance		5,657
Feeders' Day attendance	900	
Breton Field Day	350	
	<hr/>	1,250

Visual Instruction

Number of 2x2 and standard slides sent out	138	
Number of times slides used	101	
Total audience viewing slides		4,356
Individual filmstrips sent out	3,713	
Total audience viewing filmstrips		86,653
Number of reels of silent film sent out	840	
Number of reels of sound film sent out	16,390	
Total sets of moving picture films sent out	4,057	
Total number of showings of films, sound and silent	5,775	
Total audience viewing films		477,430
Number of times projection service supplied	290	
Number of screenings for groups in screening room	41	
Total number of screenings	331	

Library Circulation

Travelling Libraries

Regular Libraries	112 (4,330 vols.)	
Special Libraries	547 (19,327 vols.)	
Recorded Circulation		46,280

Open-Shelf

Adult Books	42,106	
Juvenile Books	5,521	
Plays	1,931	
Periodicals and pamphlets	2,524	
Total		52,082
Banff School		1,120

New Canadian Plays

Number of copies of New Canadian Plays sold	321
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Publications

Press Bulletin, Seasonal Notes	10,000	
Press Bulletin, Feeders' Day Program	5,000	
		15,000
Agriculture bulletins sent out during year	25,915	
Circulars and other bulletins sent out	1,231	
Mimeos	6,100	
		33,246
Total number of bulletins distributed since inception of service	657,391	
The New Trail, number sent out		10,270

RECAPITULATION

Total aggregate attendance at lectures, conferences, schools and short courses; filmstrip programs, moving pictures, Studio Theatre, field days	657,170
Total circulation of library books in Open Shelf and Travelling Library, Citizens' Forum bulletins, New Canadian Plays	100,923
Total circulation of press bulletins, agricultural publications, the New Trail	58,516

Conclusion

Adult education and extension work has been variously described as a manner of stimulating inquiring minds, as a way of helping people to better their economic position through training and a means of assisting them to become more proficient in the handling of their community affairs. Canadian people are reaching out for an understanding of the world they live in and an appreciation of their cultural heritage. The purpose of this report is to describe some of the ways in which this demand for information and training have been met.

Schooling attained early in life is, of itself, an inadequate preparation for complex modern living. Continuing education thus becomes a vital necessity. The task of helping to provide these educational opportunities is a big one and fundamental to its success is a firm basis in cooperation with organizations of many kinds. Through this framework of cooperation, the University is in the future best able to serve and be served.

Table II—Short Courses, Classes and Conferences Arranged and Organized by the Department of Extension

Short Course, Class or Conference	Sponsor	Where Held	Period	Hours	Attendance
1. The Evolution of Man and the Development of Race	Department of Extension	Edmonton	Oct. 17-Dec. 19	15	32
2. Public Speaking	Department of Extension	Edmonton	Oct. 17-Dec. 19	15	61
3. Commercial Law	Department of Extension	Edmonton	Oct. 11-Dec. 13	15	60
4. Comparative Religion 1	Department of Extension	Edmonton	Oct. 12-Dec. 14	15	26
5. Financial Statement Analysis	Department of Extension	Edmonton	Oct. 12-Dec. 14	15	45
6. Guideposts to the World of Books	Department of Extension	Edmonton	Oct. 13-Dec. 15	15	33
7. English Composition 1	Department of Extension	Edmonton	Oct. 14-Dec. 16	15	38
8. Conversational French (Section I)	Department of Extension	Edmonton	Oct. 14-Dec. 16	15	20
9. Conversational French (Section II)	Department of Extension	Edmonton	Oct. 18-Dec. 13	15	19
10. Conversational French (Section III)	Department of Extension	Edmonton	Oct. 18-Dec. 13	15	15
11. Conversational French (Section IV)	Department of Extension	Edmonton	Jan. 27-Mar. 30	15	14
12. Approach to Music III	Department of Extension	Edmonton	Jan. 31-Mar. 27	15	15
13. The Great Philosophers	Department of Extension	Edmonton	Oct. 14-Dec. 16	15	15
14. The Hebraic Heritage	Department of Extension	Edmonton	Jan. 23-Mar. 26	15	32
15. Effective Chairmanship	Department of Extension	Edmonton	Jan. 23-Mar. 26	15	25
16. Psychology of Personal Adjustment	Department of Extension	Edmonton	Jan. 23-Mar. 26	15	42
17. Landscape Design (Section I)	Department of Extension	Edmonton	Jan. 24-Mar. 27	15	47
18. Landscape Design (Section II)	Department of Extension	Edmonton	Jan. 24-Mar. 27	15	32
19. Introducing the Old Testament	Department of Extension	Edmonton	Jan. 25-Mar. 28	15	33
20. World Affairs	Department of Extension	Edmonton	Jan. 25-Mar. 28	15	25
21. English Composition II	Department of Extension	Edmonton	Jan. 25-Mar. 28	15	18
22. Geology	Department of Extension	Edmonton	Jan. 25-Mar. 28	15	27
23. Choral Leadership	Department of Extension	Edmonton	Jan. 26-Mar. 30	15	34
24. Principles of Gardening (Section I)	Department of Extension	Edmonton	Jan. 26-Mar. 29	15	15
25. Conversational French (Section II)	Department of Extension	Edmonton	Feb. 13-Apr. 16	15	45
26. Conversational French (Section III)	Department of Extension	Edmonton	Feb. 13-Apr. 16	15	48
27. Law for the Layman	Department of Extension	Calgary	Jan. 31-Apr. 3	15	23
28. A Background to Current Events	Department of Extension	Calgary	Feb. 1-Apr. 4	15	18
29. Commercial Law	Department of Extension	Calgary	Feb. 1-Apr. 4	15	16
30. Education 310	Department of Extension	Calgary	Feb. 2-Apr. 5	15	70
31. Education 322B	Department of Extension	Calgary	Feb. 2-Apr. 5	15	14
32. Education 492	Department of Extension	Calgary	Feb. 2-Apr. 5	15	18
33. English 70	Department of Extension	Medicine Hat	Feb. 2-Apr. 5	15	17
34. Geography 1	Department of Extension	Edmonton	Oct. 3-Apr. 14	80	12
35. History 56	Department of Extension	Edmonton	Oct. 3-Apr. 14	80	42
36. History 59	Department of Extension	Edmonton	Oct. 3-Apr. 14	80	30
37. Accounting 1	Department of Extension	Edmonton	Oct. 3-Apr. 14	80	36
38. Accounting 1	Department of Extension	Edmonton	Oct. 3-Apr. 14	80	50
39. Economics 1	Department of Extension	Edmonton	Oct. 3-Apr. 14	80	34
40. Education 376	Department of Extension	Edmonton	Oct. 3-Apr. 14	80	16
41. Biology 41	Department of Extension	Calgary	Oct. 3-Apr. 14	80	8
42. Education 308	Department of Extension	Calgary	Oct. 3-Apr. 14	80	9
43. Education 308	Department of Extension	Calgary	Oct. 3-Apr. 14	80	38
44. History 55	Department of Extension	Calgary	Oct. 3-Apr. 14	80	28
	Department of Extension	Lethbridge	Oct. 3-Apr. 14	80	10
	Department of Extension	Medicine Hat	Oct. 3-Apr. 14	80	32
	Department of Extension	Red Deer	Oct. 3-Apr. 14	80	

45. History 58	Department of Extension	Vegreville	Oct. 3-Apr. 14	80	24
46. Accounting I	Society of Industrial and Cost Accountants of Alberta	Calgary	Oct. 3-Apr. 14	80	58
47. Accounting II	Society of Ind. and Cost Accountants of Alta.	Calgary	Oct. 3-Apr. 14	80	30
48. Accounting II	Society of Ind. and Cost Accountants of Alta.	Calgary	Oct. 3-Apr. 14	80	36
49. Advanced Cost Accounting	Society of Ind. and Cost Accountants of Alta.	Calgary	Oct. 3-Apr. 14	80	21
50. Business Mathematics	Society of Ind. and Cost Accountants of Alta.	Edmonton	Oct. 3-Apr. 14	80	57
51. Accounting I	Society of Ind. and Cost Accountants of Alta.	Edmonton	Oct. 3-Apr. 14	80	51
52. Accounting II	Society of Ind. and Cost Accountants of Alta.	Edmonton	Oct. 3-Apr. 14	80	36
53. Advanced Cost Accounting	Society of Ind. and Cost Accountants of Alta.	Edmonton	Oct. 3-Apr. 14	80	16
54. Business Mathematics	Society of Ind. and Cost Accountants of Alta.	Edmonton	Oct. 3-Apr. 14	80	27
55. Industrial Relations	Department of Extension	Edmonton	Oct. 3-Apr. 14	80	30
56. Prospecting	Alberta and Northwest Chamber of Mines, Canadian Institute of Mining and Metallurgy	Edmonton	Jan. 17-Feb. 28	28	63
57. An Introduction to Practical Metallurgy (Monday's class)	American Society for Metals and Department of Extension	Edmonton	Feb. 6-Mar. 26	16	94
58. An Introduction to Practical Metallurgy (Tuesday's class)	American Society for Metals and Department of Extension	Edmonton	Feb. 7-Mar. 27	16	92
59. Social Work in the Community (Class A)	Canadian Association of Social Workers, Northern Branch and Department of Extension	Edmonton	Jan. 31-Apr. 3	20	55
60. Social Work in the Community (Class B)	Canadian Association of Social Workers, Northern Branch and Department of Extension	Edmonton	Jan. 31-Apr. 10	20	60
61. Clinical Medicine for Chiropodists	Chiropody Association and Department of Extension	Edmonton	Oct. 17-Oct. 18	12	11
62. Sculpturing	Department of Extension	Edmonton	Oct. 14-Mar. 23	40	15
63. Ceramics	Department of Extension	Edmonton	Jan. 18-Mar. 26	30	12
64. English Usage	Alberta Institute of Chartered Accountants	Edmonton	Jan. 21-Mar. 10	16	19
65. English Usage	Alberta Institute of Chartered Accountants	Calgary	Mar. 24-May 26	16	19
66. English Usage	Alberta Institute of Chartered Accountants	(Correspondence students)	Jan. 21-Mar. 10	9	9
67. Banff School of Fine Arts	Banff School of Fine Arts	Banff	July 4-Aug. 13	479	479
68. Summer Session	Banff School of Fine Arts	Banff	Jun. 20-Jul. 2	15	15
69. June Short Course in Painting	Banff School of Fine Arts	Banff	Aug. 15-Sept. 10	28	28
70. Autumn Short Course in Painting	Universities of Alberta, British Columbia, Manitoba and Saskatchewan	Banff	Jan. 30-Mar. 10	77	77
71. Banff School of Advanced Management	Department of Extension	Banff	Mar. 19-Mar. 31	228	36
71. Short Course in Executive Development	Department of Extension. The Life Insurance Marketing Institute of Purdue University and The Alberta Life Underwriters' Assn.	Banff	May 16-May 20	31	48
72. Life Insurance Marketing Institute	Department of Extension and the Calgary and Edmonton Personnel Associations	Banff	Nov. 14-Nov. 26	90	16
73. Personnel Management	Banff School of Fine Arts	Banff	Nov. 7-Nov. 19	65	9
74. Training Conference for Instructors of Supervisors in Industry					

Table II—continued

	Short Course, Class or Conference	Sponsor	Where Held	Period	Hours	Attendance
75.	Financial Management and Petroleum Accounting	The Petroleum Accountants Society of Western Canada and The Department of Extension	Banff	May 11-May 13	18	84
76.	School Administration	Alberta School Trustees' Association, Dept. of Education and Alberta Divisional Secretary-Treasurers Association	Banff	May 30-Jun. 1	15	94
77.	Municipal Administration	Dept. of Municipal Affairs, Alberta Assn. of M.D. Secretary-Treasurers	Banff	May 24-May 26	17	47
78.	Home and School Workshop in Group Methods	Department of Extension, Alberta Federation of Home and School Associations	Banff	Oct. 17-Oct. 20	16	54
79.	Institute on Team Nursing	School of Nursing, Faculty of Medicine, Department of Extension	Edmonton	May 19-May 21	18	35
80.	Institute on Team Nursing	School of Nursing, Faculty of Medicine, Department of Extension	Calgary	May 16-May 18	18	37
81.	Introduction to Astronomy	Department of Extension and The Astronomical Society	Edmonton	Oct. 1-Dec. 10	12	14
82.	Short Course for Librarians of Small Libraries	Alberta Library Association and Dept. of Extension	Edmonton	May 24-May 27	24	21
83.	Short Course in Rorschach Psychological Testing	Department of Extension	Edmonton	May 2-May 7	30	7
84.	Supervisory Training	Dept. of Extension and School of Commerce	Edmonton	Oct. 11-Feb. 13	32	52
85.	Management Development	Dept. of Extension and School of Commerce	Edmonton	Oct. 17-Feb. 20	32	33
86.	Personnel Administration	Dept. of Extension and School of Commerce	Edmonton	Oct. 14-Feb. 17	32	31
87.	Supervisory Training	Dept. of Extension and School of Commerce	Calgary	Feb. 21-May 22	28	36
88.	Management Development	Dept. of Extension and School of Commerce	Calgary	Feb. 20-May 21	28	31
89.	Personnel Administration	Dept. of Extension and School of Commerce	Calgary	Feb. 21-May 22	28	14
90.	Financial and Accounting Controls	Dept. of Extension and School of Commerce	Edmonton	Feb. 20-May 28	30	20
91.	Managing Investments	Dept. of Extension and the Calgary and Edmonton Branches of the Investment Dealers' Association	Edmonton	Jan. 24-Mar. 6	14	63
92.	Managing Investments	Dept. of Extension and the Calgary and Edmonton Branches of the Investment Dealers' Association	Calgary	Jan. 24-Mar. 6	14	97
93.	Farm Young People's Week	Dept. of Extension, Faculty of Agriculture and School of Household Economics	Edmonton	May 31-Jun. 8	50	103
94.	Short Course in Leadership Techniques	The A.W.P., Alberta Cooperative Union, Dept. of Agriculture, Alberta Federation of Agriculture, Farmers' Union of Alberta, U.F. Co-op., U.G.G.	Banff	Oct. 24-Nov. 4	40	38
95.	Farmers' Union of Alberta Short Course	Farmers' Union of Alberta and Department of Extension	Lethbridge	Feb. 3	6	40
96.	Farmers' Union of Alberta Short Course	Farmers' Union of Alberta and Department of Extension	Daysland	Mar. 25	6	62
97.	A.C.W.A. Short Course	Alberta Cooperative Wholesale Assn. and Department of Extension	Vermilion	Jun. 13	6	16

98.	A.C.W.A. Short Course	Alberta Cooperative Wholesale Assn. and Department of Extension	Wetaskiwin	Jun. 16	6	25
99.	A.C.W.A. Short Course	Alberta Cooperative Wholesale Assn. and Department of Extension	Fairview	Nov. 14-Nov. 15	12	15
100.	A.C.W.A. Short Course	Alberta Cooperative Wholesale Assn. and Department of Extension	Grande Prairie	Nov. 17-Nov. 18	12	17
101.	A.C.W.A. Short Course	Alberta Cooperative Wholesale Assn. and Department of Extension	Plamondon	Dec. 6-Dec. 7	12	22
102.	A.C.W.A. Short Course	Alberta Cooperative Wholesale Assn. and Department of Extension	Lethbridge	Feb. 3	6	19
103.	A.C.W.A. Short Course	Alberta Cooperative Wholesale Assn. and Department of Extension	Olds	Feb. 7-Feb. 8	12	21
104.	Oilwell Safety Clinic	P.I.T.S., W.C.B., C.P.A., C.A.O.D.C	Banff	May 5-May 6	12	136
105.	Casing Technique in Western Canada	Petroleum Industry Training Service	Edmonton	May 25	6	89
106.	Treating Oilfield Emulsions	Petroleum Industry Training Service	Edmonton	Sep. 19-Sep. 23	30	43
107.	Drilling Muds	Petroleum Industry Training Service	Edmonton	Oct. 17-Oct. 22	30	14
108.	Drilling Muds	Petroleum Industry Training Service	Drayton Valley	Nov. 29-Dec. 2	12	25
109.	Drilling Muds	Petroleum Industry Training Service	Valleyview	Dec. 13	3	59
110.	Care and Use of Wire Rope	Petroleum Industry Training Service	Drayton Valley	Jan. 18	3	82
111.	Care and Use of Wire Rope	Petroleum Industry Training Service	Red Deer	Jan. 25	3	65
112.	Care and Use of Wire Rope	Petroleum Industry Training Service	Valleyview	Feb. 13	3	76
113.	Field Handling of Natural Gas	Petroleum Industry Training Service	Edmonton	Jan. 9-Jan. 13	30	132
114.	Casing and Cementing	Petroleum Industry Training Service	Valleyview	Feb. 15	3	94
115.	Casing and Cementing	Petroleum Industry Training Service	Red Deer	Feb. 22	3	80
116.	Casing and Cementing	Petroleum Industry Training Service	Drayton Valley	Feb. 29	3	74
117.	Gas Metering	Petroleum Industry Training Service	Stettler	Feb. 24	3	63
118.	Gas Metering	Petroleum Industry Training Service	Red Deer	Feb. 27	3	37
119.	Field Handling of Natural Gas	Petroleum Industry Training Service	Calgary	Mar. 5-Mar. 9	30	58
120.	Drilling Bits	Petroleum Industry Training Service	Mar. 14	Mar. 14	3	63
121.	Drilling Bits	Petroleum Industry Training Service	Red Deer	Mar. 21	3	54
122.	Engine Maintenance	Petroleum Industry Training Service	Stettler	Mar. 28	3	64
123.	Choral Singing and Conducting	Department of Extension	Brooks	Oct. 3-Dec. 10	20	41
124.	Choral Singing and Conducting	Department of Extension	Edson	Oct. 7-Dec. 8	20	27
125.	Choral Singing and Conducting	Department of Extension	Hanna	Oct. 3-Dec. 10	20	21
126.	Choral Singing and Conducting	Department of Extension	Lloydminster	Feb. 1-Apr. 11	20	37
127.	Choral Singing and Conducting	Department of Extension	Medicine Hat	Sep. 27-Dec. 5	20	30
128.	Choral Singing and Conducting	Department of Extension	Olds	Sep. 20-Nov. 29	20	36
129.	Choral Singing and Conducting	Department of Extension	Olds	Feb. 3-Apr. 13	20	24
130.	Music Appreciation	Department of Extension	Vegreville	Oct. 5-Dec. 7	20	38
131.	Piano Master Class	Department of Extension	Red Deer	Nov. 14-Feb. 20	20	29
132.	Drama Workshop	Department of Extension	Grande Prairie	Sep. 1-Sep. 3	24	15
133.	Drama Workshop	Department of Extension	Lethbridge	Oct. 13-Oct. 15	10	25
134.	Drama Workshop	Department of Extension	Coaldale	Oct. 17-Oct. 19	10	15
135.	Drama Workshop	Department of Extension	Red Deer	Feb. 14-Feb. 16	10	10
136.	Community Art Class	Department of Extension	Edmonton	Oct. 28-Apr. 28	30	15
137.	Community Art Class	Athabasca Art Club	Athabasca	Oct. 21-Apr. 13	20	25
138.	Community Art Class	Brooks Art Club	Brooks	Oct. 7-Apr. 21	102	10
139.	Community Art Class	Bentley Art Club	Bentley	Oct. 14-Apr. 6	15	9
140.	Community Art Class	Castor Art Club	Castor	Oct. 13-Apr. 5	20	30
		Camrose Art Club	Camrose	Oct. 15-Apr. 1	20	30

Table II—continued

	Short Course, Class or Conference	Sponsor	Where Held	Period	Hours	Attendance
141.	Community Art Class	Drumheller Art Club	Drumheller	Oct. 10-Mar. 5	20	30
142.	Community Art Class	Fort Saskatchewan Art Club	Fort Saskatchewan	Oct. 19-Mar. 14	12	20
143.	Community Art Class	Grande Prairie Art Club	Grande Prairie	Oct. 18-Apr. 10	20	25
144.	Community Art Class	Holden Art Club	Holden	Nov. 21-Mar. 19	10	20
145.	Community Art Class	High River Art Club	High River	Oct. 3-Apr. 16	19	25
146.	Community Art Class	Innisfree Art Club	Innisfree	Oct. 20-Mar. 15	20	7
147.	Community Art Class	Kitscoty Art Club	Kitscoty	Oct. 20-Mar. 15	20	4
148.	Community Art Class	Lethbridge Sketch Club	Lethbridge	Oct. 5-Apr. 19	96	70
149.	Community Art Class	Lloydminster Art Club	Lloydminster	Oct. 20-Mar. 15	20	23
150.	Community Art Class	Lacombe Art Club	Lacombe	Oct. 14-Apr. 1	20	20
151.	Community Art Class	Meeting Creek Art Club	Meeting Creek	Oct. 15-Apr. 1	20	15
152.	Community Art Class	Medicine Hat Art Club	Medicine Hat	Oct. 7-Apr. 6	72	40
153.	Community Art Class	Medicine Hat Art Club (Jr)	Medicine Hat	Oct. 7-Apr. 6	30	50
154.	Community Art Class	Manville Art Club	Manville	Oct. 20-Mar. 15	20	8
155.	Community Art Class	Nanton Art Club	Nanton	Oct. 4-Apr. 17	20	27
156.	Community Art Class	Rocky Mountain House Art Club	Rocky Mtn. House	Oct. 11-Apr. 3	16	30
157.	Community Art Class	Red Deer Art Club	Red Deer	Nov. 9-Apr. 4	20	15
158.	Community Art Class	Suffield Art Club	Suffield	Oct. 7-Dec. 3	24	8
159.	Community Art Class	Vulcan Art Club	Vulcan	Oct. 4-Apr. 17	20	20
160.	Community Art Class	Viking Art Club	Viking	Nov. 21-Mar. 19	10	30
161.	Community Art Class	Wetaskiwin Art Club	Wetaskiwin	Nov. 12-Apr. 7	15	25
162.	Community Art Class	Gleichen Art Club	Gleichen	Apr. 25-Apr. 27	11	7
163.	Industrial Relations	Society of Industrial and Cost Accountants of Alberta	Calgary	Oct. 3-Apr. 14	80	23
						<hr/> 6,294

Report of Dr. R. D. Stuart, Director, Provincial Laboratory of Public Health for the year 1955

During 1955 the Provincial Laboratories carried out 370,997 examinations, the nature of which is shown in the accompanying tables. This indicates a steady increase in almost all sections, but the new method of presentation of this report prevents direct comparison with the previous years. The necessity for this rearrangement was anticipated in last year's report, because the previous method which had developed during the early growth of the laboratory service, no longer presented adequately the work carried out in the laboratories. Thus the apparent increase over last year of 76,783 examinations represents not only the real increase during 1955 but also to some degree the inadequate evaluation of the work carried out in 1954.

Special Trends

A very obvious trend towards the provision in each Province of facilities of virus diagnosis is apparent across Canada. Ontario and Quebec have had special laboratories for some years, Saskatchewan and British Columbia have either set up virus units or are in the process of doing so. Manitoba has a virus laboratory within the medical school which is available for provincial work, and the Maritimes are planning on a combined unit, anticipated in the appointment of the well-known virologist Dr. van Rooyen to Dalhousie University and to the Health Division of the Province of Nova Scotia. In Alberta, with the assistance of the Laboratory and Radiological Services Grant, a considerable amount of special equipment for virus work has been purchased and plans for the development of staff and the provision of service space are well advanced. The recent remarkable developments in our ability to identify and culture poliomyelitis viruses and the considerable success of the Salk vaccine merely emphasize the fact that viruses are gradually coming under the scope of the larger provincial laboratories and that increased laboratory information about their nature and identity is becoming necessary to provincial health authorities.

In the Central Provincial Laboratory. The increasing number of deaths attributable directly or indirectly to staphylococcal infections is commented on by Dr. Macgregor, Provincial Pathologist. This reflects a situation which is becoming of major medical concern across Canada and is due essentially to an increasing predominance of highly virulent antibiotic-resistant strains of such bacteria. Undoubtedly this circumstance explains the dramatic increase in the demands for tests on the antibiotic sensitivity of organisms, the numbers of which have practically doubled this year both in Edmonton and Calgary, and for the considerable increase in miscellaneous bacteriology recorded in both laboratories. This is commented on below under "New or Supplementary Services". Another trend detected in the large amount of autopsy material handled by the Department of Pathology in the Provincial Laboratory is the large number of deaths due to coronary occlusions and the increase in number of aneurysms of the abdominal aorta. This trend, however, is probably an expression of the greater number of individuals who now survive to an advanced age and in whom increasing arterial degenerative changes are inevitable.

In the Southern Branch Laboratory. Limitation of certain desirable but not essential services has become inevitable owing to the heavy increase in general diagnostic bacteriology carried out for practitioners and in all aspects of

sanitary control of milks and waters. The limitation is due essentially to the difficulty in finding technical and clerical staff willing to take up appointments in the laboratory as presently located. Its unfortunate situation thirteen miles away from the main residential and shopping centre of Calgary, has caused much difficulty to the Director, Dr. Shute, in his endeavours to maintain adequate staffs particularly during a period of full employment. He hopes that the service for the diagnosis of gonorrhoea by cultural methods, of great assistance to the Department of Social Hygiene in this area, will be resumed shortly.

New or Supplementary Services

A new service, antistreptolysin tests on blood serum, has been taken over by the central laboratory. The tests, which are considered of great value in the determination of a possible rheumatic aetiology of many disease conditions, were previously carried out by arrangement with the Department of Bacteriology. In the present year over 500 such tests have been carried out in the Provincial Laboratory and a considerable demand is experienced from all the Edmonton hospitals.

Another new service, the bacteriophage typing of staphylococci, has had to be developed in an endeavour to provide information for the control of staphylococcal infections in hospitals. This enables one to determine the importance of individual strains or types of staphylococci in the spread of infections or to detect a rising incidence of such infections in any area or hospital unit. The work is extremely complicated and demands the services of a highly skilled technical worker, but is considered to be of primary importance at the present time. Although the service has only been in partial operation during the latter half of the year, no fewer than 5,222 examinations have been carried out on 1,306 strains of staphylococci. To avoid overemphasizing the magnitude of this work, the last figure has been shown in Table I.

An important supplementary service has also been provided during the year through the personal interest of Dr. Amies in swimming pool hygiene. Dr. Amies carried out extensive work on Edmonton swimming pools during the season. The work, which involved many hundreds of examinations not shown anywhere on the tables, demonstrated the inefficiency, in relation to pool hygiene, or current methods of examination and led to the development of a completely new technique. The information obtained will be of great service to the Provincial Board of Health in amending present regulations.

In the Southern Branch Dr. Shute's staff under the direction of Dr. Crichton carried out a special investigation into an outbreak of sore throats in school children within the Mountain View and Bow Valley Health Units. In all 506 throat swabs were examined and a high incidence of haemolytic streptococci was detected.

Regular Services

In Pathology the examination of human tissues removed at surgical operations continued to be a major item in both laboratories. In Edmonton the examination of 7,810 specimens, from rural hospitals alone, resulted in the diagnosis of 497 cases of cancer and emphasized the important role of this laboratory even outside the main population centres. Of the total number of such specimens, 17,513 received in Edmonton and Calgary from all sources

(see Table I), 1,376 showed evidence of malignancy, a cancer incidence of over 12%.

The high incidence in the Edmonton area of a type of dysentery due to *Shigella sonnei* suggests the increasing importance of this organism as a cause of disease. Most of the cases, however, were associated with the Red Deer area in which an epidemic focus was indicated in last year's report. *C. diphtheriae* has again been isolated from a number of patients this year. No significant number of cases of diphtheria has yet been recorded, but the organism has appeared in a number of separate localities particularly in the northern half of the Province. Its persistence and wide distribution indicates the continued importance of thorough immunization of school children.

The striking increase, from 775 in 1954 to 1,219 this year, in the numbers of examinations carried out for fungus infections indicates the increasing demand for this type of investigation and reflects the enthusiasm of the mycologist, Dr. Carmichael. These examinations are very time-consuming and require very special training and experience and it is our good fortune that the Province was able to contribute directly to Dr. Carmichael's training.

Staff

Miss Mary Forge, Senior Technologist in Pathology, with the assistance of a Provincial Training Grant, spent a period of three months studying new and special techniques in England and the United States. Her time was divided between the British Post-Graduate Medical School in London, the Papanicolou Institute in New York and the Army Medical Institute of Pathology, Washington, D.C. The new techniques which she brought back are being introduced into the surgical and autopsy tissue services and should considerably increase their proficiency.

Mr. A. B. Lamb, M.Sc., of the Department of Bacteriology, resigned his position with the Laboratory this year to take up an appointment under the Defence Research Board, and Dr. Barry Pierce of the Department of Pathology also resigned to continue training in pathology at the University of Pittsburgh.

Continual changes in technical staff and the introduction of often completely untrained newcomers has thrown a great burden on the more senior members of the technical and supervisory staff. My appreciation of the extra work they have cheerfully undertaken must be publicly acknowledged.

Table I
Examinations Performed in the Provincial Laboratories
Year 1955

	Edmonton	Calgary
<i>Control of Common Infections</i>		
Diphtheria	3,649	920
Enteric-dysentery	5,656	2,574
Fungus infections	1,219	59
Intestinal Parasites	262	58
Naso-pharyngitis	8,067	1,615
Tularaemia serology	1,846	1,090
Tuberculosis	10,087	2,009
Undulant Fever serology	1,846	1,090
Whooping Cough	17	19

Other diagnostic and miscellaneous

Animal inoculations (other than T.B.)	128	8
Antibiotic etc. sensitivities—disc	74,397	16,479
tube	14	696
Blood cultures	1,032	148
Leptospirosis	238	.....
Miscellaneous	14,816	3,645
Paul Bunnell test	1,016	150
P.M. Bacteriology	267	.....
Referred cultures	222	33
Special investigations	1,834	2
Trichomonas	3,233	853
Virus infections	56	.....

Venereal Disease Control

Chancroid etc.	12	.....
Gonorrhoea—Smears	10,522	5,874
Cultures	3,435	853
Syphilis	115,006	34,411

Sanitary Bacteriology

Food Products	50	7
Milk and Cream	2,764	4,263
Water	5,606	7,015
Utensils		

Pathology

Diagnostic cytology—blood smears	340	169
bone marrow	25	14
fluids	351	376
Routine diagnostic histology—specimens	13,241	4,272
Routine diagnostic autopsies	353	18
Medico-legal autopsies	59	
Referred diagnostic histology	16	
Pregnancy Diagnosis—Frog Test	548	
Rabbit Test	47	

TOTALS	282,277	88,720
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**Report of Dr. D. Shute, Director of the Provincial Laboratory of Public Health,
Southern Branch**

For the year 1955

The year 1955 has seen a very considerable increase in the volume of work conducted in the Provincial Laboratory, Southern Branch, Calgary.

Particularly notable are the increases in Miscellaneous Bacteriology (176%), Sanitary Bacteriology—dairy products (58%) water examinations (22%) and Diagnostic Histology (19%).

Owing to this overall increase of work and losses and changes of staff, the sub-department for the culture of the gonococcus had to be closed down. It is hoped that this will prove to be only a temporary measure.

In the late spring there was an outbreak of clinically mild sore throats in school children in the areas covered by the Mountain View and Bow Valley Health Units (Strathmore, Olds, Bowness, Beiseker and Bassano).

A total of 239 throat swabs were examined—181 from children with symptoms and 58 from asymptomatic contacts.

As a result of this small epidemic a survey of symptom free school children was made later and 267 throat swabs were examined: 52 (19.5%) were found to be harbouring haemolytic Streptococci.

Forty-three strains of these haemolytic Streptococci were grouped and 32 were found to belong to Group A (beta haemolytic Streptococci).

One child developed rheumatic fever and the single swab examined from her throat showed no streptococci.

This investigation naturally entailed a considerable expenditure of time for Dr. Crichton and the technical staff.

There was no other major outbreak of contagious or infectious disease with which this laboratory was concerned.

The maintaining and recruiting of suitable secretarial and technical staff continues to be a major administrative difficulty owing to the unfortunate siting of the laboratory ten miles west of Calgary.

Report of C. Emerson Noble, Director of the Industrial Laboratories

I would give you the following report for the Department of Provincial Analyst and Industrial Laboratories for the year April 1, 1955 to March 31, 1956.

Examinations and Analyses

Acid	2	Cheese	1
Aggregate	3	Chlorine compounds	4
Alcohol	1	Chrome	1
Alfalfa	1	Cinders	1
Aluminum	1	Clay	37
Amine	1	Cleanser	6
Antifreeze	4	Cloth	7
Ash	2	Clothes	26
Asphalt	1	Coal	7
Barley	1	Coffee	3
Barytes	8	Concrete	45
Bauxite	1	Copper	1
Bentonite	5	Cores	1
Blood	247	Cracklings	1
Bone Meal	1	Cream	2
Brain (for alcohol)	25	Concentrate	1
Brewer's Yeast	1	DDT	1
Breakfast Cereal	6	Deposits	34
Brass	4	Dolomite	1
Butter	3	Dust	6
Candy	1	Dye	1
Car parts	2	Egg Powder	4
Catalyst	3	Embalming Fluid	1
Cement	16	Fat	1
Cerebral Fluid	1	Feed (Animal)	43

(Poultry)	47	Mortar	9
(Concentrates)	9	Mud	5
Fertilizers	1	Narcotics (O & ND Exhibits) ...	11
Fiber Glass	329	Nails	3
Fire Exhibits	13	Oats	2
Fish	1	Oil (Lubricating)	5
Flax	1	(Protective)	1
Flour	4	(Fuel)	1
Food (Human)	24	(Edible)	3
Fruit	3	Ore	356
Fruit Juice	4	Paint	11
Fungi	6	Paper	4
Furs	4	Penetrant	13
Galena	3	Pills	2
Gasoline	9	Pipe Metal	1
Glaubers Salts	6	Plants	1
Glass	12	Plaster	6
Glycol	4	Poison Exhibits (Misc.)	3
Grain	1	Poison Exhibits (Human)	351
Gravel	4	Police Exhibits (Misc.)	87
Grass	1	Powder	6
Granite	1	Protein	2
Graphite	1	Resin	1
Grease	2	Rock	221
Gypsum	4	Rug	1
Hair	4	Sand	54
Hay	4	Sandstone	1
Honey	1	Salt	2
Hydraulic Fluid	3	Scale	10
Industrial Chemicals	5	Schist	2
Insects	2	Sediment	1
Iron	7	Sewage	1
Lead	2	Shale	22
Liquor (Detailed for ALCB) ...	67	Shoe	1
(Malt for ALCB)	914	Silica	1
(Miscellaneous)	11	Silage	2
(Police Samples)	103	Sludge	1
Liquid	5	Soap,	18
Lime	4	(Soap Powder)	1
Limestone	58	(Detergent)	1
Linseed Oil	1	Soft Drinks	1
Magnetite	4	Soils	77
Marl	146	Solvent	2
Meat	12	Sterilizing Solutions	4
Medical Compounds	18	Solutions	4
Medicine	3	Steel	52
Metal	7	Stucco	1
Mica	3	Sugar	1
Milk	7	Sulphur	1
Minerals	4	Stomach	29
Miscellaneous	40	Talc	1

Tankage	24	<i>Engineering Materials:</i>	
Urine	62	Batteries	2
Volcanic Ash	4	Concrete Cylinders	1,827
Water (Sanitary)	2,298	Cables	15
(Boiler)	11	Electrician's Gloves	249
(Industrial)	33	Lightning Arresters	74
Wall Board	2	Motors	2
Wax	8	Millivoltmeter	2
Wire	1	Potentiometer	1
Wheat	104	Recording Demand Meter	1
Wood	19	Street Lighting Units	3
Veterinary Specimens	736	Transformer Oil	8
		Thermometer tester	1
		Voltmeter	1

During the year 1955-6 The Industrial Laboratories and Provincial Analyst carried out 9,391 analyses and tests, which is an overall drop. The decrease is in the number of Engineering tests made for the laboratory and handled in conjunction with the Departments of Civil and Electrical Engineering. The number of these tests dropped from 4,734 to 2,186, and is mainly due to Commercial Laboratories taking over the concrete testing.

The number of analyses made in these laboratories showed an increase. Many of these were made as required for Provincial Government Departments such as the Attorney General, Agriculture, Alberta Liquor Control Board, Mines and Forests, Lands and Minerals, Health, Provincial Secretary, Highways, and Public Works.

Control analyses were made for the Alberta Liquor Control Board re the Breweries and the Breweries were examined monthly.

Chemical Examinations were made for the Provincial Coroner and for the Pathologists of the Alberta Hospitals, and necessary court evidence was given under the Dominion and Provincial Acts and Regulations.

Exhibits from the various police departments were examined and court evidence given as required.

As in the past the greatest increases are in the analyses for health, pathology, and the Veterinary Laboratory, which are most time consuming. The Police work also continues to increase, whereas commercial analyses decrease as more industrial analyses are done privately and less time is available for this work. Many of the commercial analyses require considerable research. Methods of analysis require considerable research, especially in search of methods to suit available apparatus.